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Original Articles.

THE USES AND ABUSES OF COCAINE WITH REFERENCE TO MUCOUS MEMBRANES ESPECIALLY.

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Since I received my first twenty grains of the hydrochlorate of cocaine (a part of the first two drachm package that arrived in New York), I have used many ounces; perhaps, altogether, by myself and assistants, as many pounds as my original package contained grains.

It will not be amiss for me to say in the beginning that I now have very different opinions of its uses, from those I entertained during the first year of its advent. However, one of my original opinions of its applicability has only become more and more confirmed with my increased use of it; and that is that its utility is principally confined to its local application to mucous membranes.

The softer the mucous tissue to which it is applied, the sooner is its effect reached and the less the quantity necessary; and, as a consequence, the quicker and more decided is the toxic effect when its application is persisted in to this extent.

The general symptoms, however, are, everything else being equal, much oftener present in proportion to the area of membrane surface involved, than in proportion to the strength of the solution applied. Hence, sprays of a weak solution are liable to produce toxic symptoms, when much stronger solutions can be applied with a saturated cotton probe or wad, to a limited area, almost with impunity.

The constitutional effects of cocaine are manifested by a feeling of faintness—it may be even to the loss of consciousness—a trembling of the limbs, a pallor of the face, etc., any or all of which may appear in one minute or in fifteen minutes after the application to a large surface. Again, these symptoms may be produced by a small quantity of a one per cent. solution in one individual and not in another; even if in the latter both the strength and quantity be ten times multiplied. I have never yet reached a conclusion as to the average amount of cocaine that is necessary to produce the constitutional symptoms; neither do I ever know, the first time I use it, how to estimate the individual's susceptibilities.

Every individual seems to be a law unto himself as to the quantity necessary in his own case to accomplish complete local anæsthesia; and even in the same person the amount will vary at different times, with no apparent cause. Under similar circumstances I find it impossible to reach a complete local anæsthesia in some, short of the toxic symptoms; when in others, one-tenth of the amount will render the application of a galvano-cautery absolutely painless.

To obviate the unpleasantness and delay caused by the constitutional symptoms, it is my custom to administer a stimulant of brandy or whisky at their first indications, and make the operation quickly and, always under such circumstances, painlessly. When it is found by trial that one bears the drug badly, it would be well to always give a stimulant before the second application is made.

I am sure that the last thousand galvano-

cautery operations I have made would represent a much greater per cent. that were absolutely painless, than the nearly three thousand cauteries that preceded. Perhaps this has been due to my greater familiarity with technique of cocaine applications in the more recent cases.

In some, its effects in the superior pharynx are peculiarly distressing, more especially at the first application, but less and less so afterwards. However, it is well to remember this and avoid it, when making local applications above, by not allowing the solution to gravitate from the cotton plug.

The time necessary for cocaining a mucous membrane is perhaps as indefinite as the strength of the solution; both due to that unknown quantity—the individual. Approximately, however, four to ten minutes and a four to ten per cent. solution for a small surface may be regarded as an average. If the intention is to produce the effect over a small surface only, as in galvano-cautery operations, a concentrated solution—ten to twenty per cent.—should be used, and the result expected in four to eight minutes. If, however, a general turgescence of any membrane should suggest the use of cocaine, then a spray of a very weak solution—a one or two per cent.—should be expected to accomplish the desired result in one or two minutes. In either case, the general effects may appear without any warning and mar the anticipated good results or, at least, render an otherwise easy operation, tedious and unpleasant.

It has been my custom, from the beginning, to make my solutions at the moment I use them and to vary their strength according to the case, and as I use no weights or measures, I never know, only approximately, the strength. The range is so great that I hesitate in stating it, as I have not space to give my reasons for sometimes using a one grain to the minim solution, and again, only a one grain to five hundred minims. As a general rule, however, the strength should be in inverse proportion to the surface to which it is applied. Since my many disappointments with ready-made solutions of cocaine, during the first few months of its advent, I have never risked any solution that had not been recently dissolved.

In case it should be necessary to dissolve a large amount, it would be well to add boric acid for its preservation, in a proportion of about one grain of the latter to ten grains of the former.

For safety, it is best to supply the drug instead of giving the patient a prescription to have filled and bring with him for an appointed operation. The operation will thus be less magnified in the patient's mind and he will be less liable to familiarize himself with the proportions and uses of the drug, should the temptation to use it himself arise afterwards. For these reasons, I do not, in any instance, give a patient a prescription containing cocaine as a leading ingredient.

As an ingredient in sprays, I find it abused more, perhaps, in hay fever prescriptions, than anywhere else. This is true also where it is prescribed in the form of powders for this disease.

The turgescent condition of all the mucous membranes of the upper respiratory tract, especially in the nasal turbinates, that is always present in hay fever patients, is so quickly palliated and rendered bearable, that the temptation is great to prescribe cocaine in some form for the patient's own use; but it is a dangerous experiment and one to be ventured upon only in exceptional cases.

During the past few years I have seen many journal articles that claimed for it a decided aphrodisiac effect, while my observations have been universally to the contrary. It will not be departing too far from the subject if I mention the effects of cocaine (through the mucous membranes) upon two cases of priapism, notwithstanding the fact that the results in these cases were reached through the general systemic impressions of the drug. The two young men, who were the victims of this rather unusual disorder, came under my observation by accident, and at intervals of about three years, each came to my office in a carriage for a coincident nasal and pharyngeal inflammation. Cocaine dissolved in vaseline, together with a small quantity of campho-mentholine, was sprayed into the nasal and pharyngeal cavities to the great relief of all the unpleasant symptoms in these regions.

But this was not all. In the first case, to my surprise and to the patient's great joy, the other and more painful malady disappeared within ten minutes. In the second case the symptoms were almost exactly like the first, and the patient's de-

light was greater than my surprise, as I was this time anticipating a similar result from the same treatment. The relief of the priapism, in both cases, remained permanent.

In both instances, the usual treatment for such cases had been resorted to apparently without result for 24 and 36 hours respectively, only to be completely relieved by a cocaine spray used upon a distant mucous membrane for a coincident malady. It would seem that in these cases cocaine acted as an anaphrodisiac, and it should not be surprising when we remember that its primary effect is to reduce a turgescence of the turbinates, and that these tissues are analogous in many respects to the erectile tissues that are involved in priapism.

I desire here to emphasize most decidedly one contra-indication in the use of cocaine as a collyrum, and that is that *it should never be used when an abrasion of the cornea exists*; nothing in the form of a collyrium is more deceptive, as it is also most grateful to a denuded corneal surface.

The cornea is covered with the epithelial layer of the conjunctival mucous membrane only; here no middle layer proper exists whence it can derive its nutrition, hence it quickly looses its vitality when subjected to this local anæsthetic. So also the outer layer of the cornea, receiving its nutrition by imbibition only, seems to be even more susceptible to the destructive effects, of cocaine.

I have seen a number of cases, during the last few years, (especially since this drug has been introduced into general use) in which the cornea has been greatly damaged by its constant and frequent introduction, for no other purpose than the temporary relief of pain; but unfortunately the relief thus produced proves to be a delusion and the destruction produced upon the cornea is only masked for the time by the anæsthetic effects.

I have especially seen these bad results in the cases of physicians who had themselves persisted in its use for the comforting effect to their own eyes, both during the presence of foreign bodies on the cornea and after their removal.

Cocaine is contra-indicated also in any corneal inflammation and should not be prescribed beyond the acute stage of any form of conjunctivitis.

I have had but little experience in its use beyond its local application to mucous membrane surfaces, because I have never believed that its range of utility extended any further, except, perhaps, in a very few instances, hence I know very little of its general usefulness hypodermically, as it has usually seemed to be quite as painful to introduce it in this manner, as the pain of the minor operation would be, especially when we consider the limited quantity that can be borne when it is introduced so directly into the circulation.

I have sometimes however injected the solution into the tonsilar mass to hasten anæsthesia, but the toxic effects follow so quickly after its introduction into the circulation in this manner, that I always hesitate to resort to this means in an untried subject.

Yet in some operations on the eye as in tenotomies, iridectomies, cataract operations, etc., I frequently use the syringe for introducing a weak solution—1 to 2 per cent.—sub-conjunctivally, on subjects that do not succumb to a 4 to 6 per cent. solution applied superficially for fifteen to twenty minutes at short intervals.

In preparing for a tonsil amputation, I use a cotton probe saturated in a five to a fifteen per cent. solution, and apply it to the whole surface of the mass once; then I send the patient to a waiting room and perhaps in the meantime—about eight or ten minutes—see another patient, then make a second thorough application and wait three to five minutes before I use my knife and hook tonsilotome.

Occasionally, in an extremely sensitive patient who has not by this time exhibited any of the general effects, a five per cent. solution may be introduced into the tonsilar mass with a long hypordermic needle before proceeding to amputate.

In nearly five thousand tonsil amputations (four-fifths of which were done under cocaine) I never had a dangerous hæmorrhage and not more than a dozen cases that even proved to be troublesome from this cause.

Undoubtedly, cocaine exerts a decided hæmostatic effect upon hypertrophic tissue, especially when it has thoroughly saturated the mass before an incision is made. Yet, after the solution of continuity, its blood-staying qualities are not equal to many other hæmostatics, and it cannot be relied upon for this purpose.

During the first years of its use, this drug was vaunted by many writers in the medical journals as a great panacea—as the sovereign remedy for ear-ache but naturally, disappointment followed quickly in the practice of these theorists, who seemed not to remember that the outer layer of the membrana tympani was not a mucous layer, else they failed to remember the fact that an aqueous solution of cocaine could be only sparingly absorbed through a cutaneous epithelium.

After the rupture or incision of the drum membrane in an acute catarrhal inflammation of the middle ear, when it becomes possible for the solution to reach the membrane involved, the call for relief from pain has already ceased. When it is practical to produce a few drops of a strong solution into the middle ear cavity through the eustachian tube, the pain is usually relieved at once; but as it is not always possible to do this on account of the swollen mouth of the tube and as another question arises here beyond the scope of this paper, as to the advisability of the trial in any case, cocaine cannot be regarded as so great a panacea in ear-ache as it was first claimed to be by many who wrote only upon faulty theoretical grounds.

I have occasionally heard of cocaine habitues, all of whom were physicians, but I have had no personal experience with these unfortunates. Such cases will be found to be linked with whisky habits in the great majority of instances.

I think, however, that we should always remember the danger of such a consequence when making a prescription containing cocaine, and be guarded when even its suggestion arises.

Like all other drugs that are potent for good, cocaine is also potent for evil. Like fire, it is a good servant but a bad master.

PYLORIC PAIN IN DYSPEPSIA.

Coutaret, according to the *Revue de Thérapeutique Médico-Chirurgical*, advises the following treatment in the pain of dyspepsia:

℞ Saturated chloroform-water.....5 iv.
Simple syrup of colombo.....3 iss.
Powdered extract of cannabis indica..gr. fiss. M.

Sig.—A dessertspoonful of this may be taken every half hour until the pain is relieved, particularly at the time that the chyme is passing from the stomach into the intestine.

THE INFLUENCE OF TOBACCO ON VISION.*

BY FRANCIS DOWLING, M. D.,
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As far back as 1833, a Scotch physician, Dr. McKenzie, of Glasgow, first called attention to the influence which tobacco exerts in the causation of certain kinds of blindness, in these words: I have already had occasion repeatedly to hint my suspicion that one of the narcotic acids, which custom has foolishly introduced into common use, namely, tobacco, is a frequent cause of amaurosis.

During the year 1884, while in Paris, in the eye clinic of Dr. Golezowsky I collected some information bearing on this subject, and more recently I have made a series of examinations of the employees of the principal tobacco factories of Cincinnati, with the same object in view.

I here give a synopsis of my findings in one hundred and fifty of these selected cases.

There were altogether about 3,000 employees in these factories which I visited, about the half of these were females and the other half males. I found that ninety per cent. of all the male employees, used tobacco in some form or other. About twenty per cent. chewed tobacco in addition to smoking liberally of a pipe or cigars; most of them did their smoking in the morning and evening before and after working hours.

One woman aged forty, presented a well marked case of tobacco amblyopia—she confounded the red and green colors of the test with black, and white with dark gray. She also presented a notable diminution of her visual acuteness and said her eyesight had been failing for the past two years. She had been working in tobacco for five or six years but has never used the article in any shape.

Comparatively few of the men examined drank to any great extent, and those who did, drank mostly beer.

A very large number of the men appeared to have a flabby condition of the muscles, and to suffer more or less from anemia. This was particularly noticeable

*A paper read before the Mississippi Valley Medical Association in its 18th Annual Meeting at Cincinnati, October 12 to 14, 1892.

among the female employees who were largely made up of young girls.

The ventilation of the work rooms was, as a general thing, as good as could be expected in establishments of this kind.

The principal colors confounded, by those who were examined were red confounded with pink, dark brown or black, the latter usually in the more pronounced cases; green was confounded with light blue, yellow or black. White was as a general thing confounded with grey of different degrees of intensity, according to the degree of tobacco infection. All of these cases were only affected for the central colors in the test,—the colors in the periphery could be distinguished without much difficulty.

The men examined ranged in age from thirty to sixty years, and were among the heaviest consumers of tobacco in the factories, so that they were among the best subjects that could be had for the object in view, viz: ascertaining the effects of tobacco on the system.

In my first series of examinations, some of the females were included in the list, but with the exception of the case already named, none gave evidence of tobacco poisoning, as manifested by troubles of vision.

Out of over 150 men examined there were forty-five, who showed more or less evidence of tobacco amblyopia, the majority of these, however, were of a light degree, but thirty, however, among the number were pretty well marked cases as they distinctly mistook the red color of the test for brown or black, and the green color for light blue or orange, and in some instances black. They were also unable to make out the white spot in the center of the visual field.

The majority of those who were examined, that is of the whole 150, showed evidence of a contracted condition of both pupils. This was present in a good many who showed no other evidence of tobacco poisoning, but it was marked and persistent in those who showed other well marked evidence of tobacco infection.

Thirty out of the forty-five complained of a gradual failure of vision. Three-fourths of all the men examined were over thirty-five years of age, and the oldest man examined was aged sixty-one years.

Some of the men examined smoked as high as twenty cigars a day. In several instances, the proprietors of the establishments where the examinations were made pronounced themselves skeptical in regard to tobacco having any deleterious influence on the eyes. They were very much surprised when they found that they confounded the colors on the test chart, and were finally convinced that tobacco could have a bad influence on the eye-sight.

When I commenced my examinations, I was under the impression that the constant inhalation of the dust and odor of the tobacco in the workshops would tend in itself to bring about symptoms of tobacco amblyopia. I am inclined to think this hardly takes place, for in my examination, I found that those who did not smoke or chew were uniformly free from troubles of vision of a toxic nature and the females were almost universally free from the trouble, that is, as far as I examined them.

As a result of all my investigations in this department, the following would be a fair resumé of the principal symptoms, which characterize chronic tobacco poisoning, affecting both the general system and the organs of vision:

GENERAL SYMPTOMS:—The subjects are light eaters, and the appetite is easily satisfied. A large number have a decided antipathy to meat, constipation is usual, the sleep is usually disturbed, often by disagreeable dreams. They usually have to go to bed late, as they claim in order to be able to fall asleep. They often wake up in a few hours, and are unable to go to sleep for some time. They usually complain of more or less palpitation of the heart and the pulse generally ranges at about 90 or over. On taking any great amount of exercise the muscles feel unusually tired, and the hand often has a characteristic tremble on holding a book or pen. A case in which this latter symptom was particularly well marked came under my treatment recently, in a man who was a heavy smoker, and had pronounced symptoms of tobacco amblyopia in adddition.

EYE SYMPTOMS:—The subjects who usually suffer with tobacco blindness are almost always males between the ages of 30 and 60 years. Exceptions to this occasionally occur, and in my own series of examinations I found one young man aged 19, who presented a well marked case of this trouble. The young man was a most inveterate

smoker and chewer of tobacco. Noyes also states that he treated a boy of 15, who presented a classical case of this disease. The boy was an inveterate cigarette smoker.

There is almost always a gradual but progressive failure of visual acuteness, in in both eyes. This was noticed more or less in a large number of all the cases which I examined.

Luminous objects dazzle the eye-sight, and a bright light is worse for reading by than a subdued one. The patients see better in the evening than in the middle of the day and in this connection Forster cites the case of an old smoker, who in playing nine pins could not distinguish between the upright pins and those that were down, during the bright light of day, but had no difficulty in that direction as evening came on. In addition to this patients often complain of a glimmering mist which covers all objects, especially in a bright light.

These subjects almost always confound colors, for central vision; first in the order comes red; this is generally taken for dark brown, pink or black; next in order comes green. This color is taken for light blue or black. Then in order comes white, which is taken for dark gray or black. Pink to these subjects often looks like blue. It must be remembered that it is only for the central visual field that these colors are confounded; the periphery is usually seen all right.

Myosis:—Persistent contraction of both pupils is generally present, and this was the most frequent of all the symptoms noticed in the cases examined, and we could almost always tell by looking at the pupils in advance of the rest of the examination, that the subject would fail to make out the colors of the test. This symptom was present, in many cases where the men were heavy chewers of tobacco, even when there was very little other evidence of infection.

It would be well here to mention that in some cases, this contraction is so pronounced that it is impossible to illuminate the eye chamber sufficiently to make an examination of its fundus by means of the opthalmoscope, and in consequence this condition may be mistaken for other disease, for a case on this point I am indebted to my friend and former teacher, Dr. Galezowski, of Paris. The case was treated by the Doctor in 1889, and he writes me the particulars under date of last August as follows: A man in the island of Martinique, suffered a diminution of vision to such an extent that he was no longer able to go about without assistance. He consulted a doctor on the island who examined him and said that he had a cataract and advised an operation. The patient's wife took him to Paris and asked Galezowski to perform the operation. The Doctor, before operating, made a careful examination and was surprised to find no trace of cataract.

The patient had instead a marked case of tobacco amblyopia from smoking from 20 to 30 cigars a day. He was placed under appropriate treatment. The use of tobacco in any form was strictly forbidden him as well as alcohol. In about three and a half months the man had entirely recovered the use of his sight, without operation.

It will be well to mention that all the symptoms spoken of are more marked in the case of chewers of tobacco than in smokers. This we can probably explain by the fact, that in the case of chewing, more nicotine is absorbed, than in the case of smoking—for in the latter case a great part of this poisonous agent is volatalized by the heat and escapes with the smoke—while in the former, most of it is directly absorbed into the circulation through the blood vessels of the mouth and tongue.

Lastly, the opthalmoscopic examination of the eyes of those affected with tobacco amblyopia reveals the papilla of the optic nerve to be more than usually red in the early part of the affection, later it appears anemic, especially on the temporal half, and finally atrophy of the disc takes place. It is quite probable that these changes in the papilla are caused by direct action of the nicotine, which enters the circulation, and causes contraction of the smooth muscular fibers, and then diminishing the caliber of the minute blood vessels of the part, irritation of the nerve tissue of this essentially sensitive body takes place at the same time, by the same agent, and this explains the congested condition of the part seen in the early history of the disease. The pressure, etc., caused by the congestion, finally causes a gradual atrophy of the disc and eventually more or less of the contiguous retina, according to the duration of the disease, and the amount of tobacco infection.

Communications.

MYXOMA OF THE NOSE, AND FIBRO-MYXOMA OF THE NASO-PHARYNX.*

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Myxomata are much the most frequent of nasal tumors. Zuckerkandl is said to have found one polyp in every eight or nine autopsies, but from his own description it is evident that he included many cases of hypertrophy and of other growths, in his list of polyps. Bosworth in private practice has found one polyp to every eleven cases of ordinary catarrhal inflammation of the nose. In my own experience they have certainly not formed so large a proportion, probably because of the wide prevalence of catarrhal inflammation in this region. Myxomata may occur at any age, but are much most frequent after sixteen. As regards their cause, nothing definite is known; but it is a significant fact that the favorite site for their origin is in the mucous membrane covering and beneath the middle turbinated bone.

McBride and Bosworth both find the exciting cause of nasal myxomata in a "water soaked" condition of the mucous membrane—a condition especially prone to occur in the area just named, partly from the structure of the mucous membrane here, and partly from the narrow space between the middle turbinated and the unciform process, which may easily be closed by a little swelling and thus the bony ridges brought into contact. It is a little strange that recognizing this state of the mucous membrane as the underlying cause, Bosworth nevertheless advises no treatment further than the removal of the growth.

Some years ago Woakes advanced the view that a necrosing ethmoiditis was the exciting cause of nasal polyps. This opinion is not generally held by other surgeons, and has been subjected to much criticism. Lennox Browne, Walsham and Hill at a recent meeting of the British Medical Association, asserted that to find ethmoidal disease at all in this connection, is very unusual, while McKenzie, Bosworth and others, insist that Woaks has confounded cause and effect, and that ethmoidal necrosis when it does exist is the consequence of the nasal polyp, not the cause. This opinion is substantiated by the fact that bone disease is not common where there is but a single polyp, but is to be found where there are a great many, and especially after they have existed for some time.

The most exact investigations into the situation of nasal myxomata have been made by Zuckerkandl. In thirty-three autopsies he found the polyp to originate from the lips of the hiatus semilunaris fifteen times, from the edge of the middle turbinated four times, from the subjacent bony eminences six times, and from the septum three times. The growths on the septum were all sessile and probably were hypertrophies, rather than true polyps, since by other observers the septum has only very rarely been found to be their site, McKenzie stating that the cases reported by Bryant, Leriche, Wagner and Hartman (each one case) were the only authentic instances within his knowledge. The origin of at least two-thirds of nasal polyps at the edge of or beneath the middle turbinated bone has important practical applications in their treatment, since, as an inspection of this region on the dried bone will show, it must often be impossible to reach the base of the polyps without removing a piece of the middle turbinated.

The diagnosis of myxomata is usually easy; their color, consistency, mobility, location and painlessness distinguish them from other growths. The greatest liability to error in this respect lies in overlooking small polyps which are deep situated beneath the middle turbinated. In every suspicious case this situation should be thoroughly examined, a pledget of cotton soaked in a four to ten per cent. solution of cocaine being first packed in under the bone to produce anæsthesia, and to contract erectile tissue.

Where there are several polyps, the mucous membrane covering the middle turbinated is sometimes found to be in a state of myxomatous degeneration; with

*Read before Medico-Chirurgical Society of Louisville, Ky.

irregular polypoid hypertrophies growing from its side and each end. In a small proportion of cases the cells of the ethmoid are continued into the middle turbinated and its anterior end bulges toward the septum; on removing the shell of bone covering this prominence, the cavity will be found occupied by one or more polyps having the appearance of a cyst. I have seen two such cases in my own practice.

The symptoms produced by nasal polyps vary in different cases. Sneezing which Bosworth has found almost always present and very persistent, has, in my patients, been often absent.

A sense of pressure about the bridge of the nose is usually complained of, and when the polyp is large there is obstruction to nasal respiration on that side. Sometimes the only symptoms mentioned by the patient are reflex ones, referring to other organs. Recently a lady consulted me on account of overflow of tears and "weakness" of one eye. She made no mention of nasal disturbance and was greatly surprised when I removed several polyps from the corresponding side of the nose. The epiphora caused by nasal polyps is usually attributed to pressure on the nasal duct, but bearing in mind the soft consistence of the tumor and the bony walls of the canal, it seems to me much more probable that it is due to reflex lachrymation.

Bosworth has found an astonishingly large proportion of polyp cases in asthmatic patients; thus, in thirty-four cases of hay fever asthma there were nine cases of polyps, while of forty-six cases of perennial asthma, eighteen were the subjects of nasal polyps. Not less remarkable are the results of treatment in Dr. Bosworth's hands. Of five cases of hay fever asthma, three were cured and two improved by removing the polyp and straightening the septum, while of eighteen cases of perennial asthma, fifteen were cured and three improved by simply snaring away the polyp. The experience of other specialists hardly agrees with that of Bosworth, either in the large proportion of polyp cases among sufferers from asthma, or in the very favorable results to be obtained by removing the polyp when present. I know of no other statistics on the subject, but the general opinion of writers is that nasal obstruction is far from being always present in cases of asthma, and that when it exists, its removal more often alleviates than cures the disease. McBride, however, relates a case in which the removal of a polyp too small to cause obstruction was followed by immediate and great relief to asthma.

This reflex influence of small growths is now well established and shows the fallacy of the opinion expressed by McKenzie, that polyps requiring treatment are generally between a currant and a grape in size. Various other symptoms have been attributed to nasal polyps; serious organic disease of the eyes, epilepsy and megrim, but no such cases have come into my own experience. The sense of smell and consequently of taste is often impaired, and where mouth breathing is necessitated for a prolonged time, its injurious effects on the throat and lower air passages are likely to ensue. Tinnitus aurium and deafness are often produced by nasal myxomata, but are much more commonly associated with post-nasal polyps, to be presently described.

The treatment of nasal myxoma consists in the removal of the growth, and appropriate applications to prevent its recurrence. The method of operating advised by some, even of the most recent, textbooks on general surgery seems strangely out of place in this day of perfected examination, and surgical technique. Thus, a voluminous work which has recently appeared recommends that the patient should be in the recumbent position, and that the surgeon introducing forceps should grasp the growth and twist off with it a portion of the middle turbinated, and that a general anæsthetic should usually be given. Not a word is said as to the use of the nasal speculum and reflected light to illuminate the nares and accurately locate the polyp. But only by such means is a thorough diagnosis possible. The polyp being seen, a four per cent. (or stronger) solution of cocaine should be applied around and on it, either as a spray or as I prefer soaked in a pledget of absorbent cotton. Used in this way we are less likely to produce constitutional symptoms or to have the cocaine get into the nasopharynx with the unpleasant sensations which that causes. Local anæsthesia and contraction of the blood vessels having been thus induced, a snare should be introduced, the wire loop worked as well as possible around the pedicle of the

polyp and the growth removed. Operating in this way there is usually very little pain and very little hæmorrhage—often none. For anterior growths such as we are now describing, I prefer the reel snare of McKenzie and No. 5 piano wire; the different forms of snare, however, are numerous and most of them are good. So far the line of treatment is well-defined, but as to what further measures are necessary authorities do not always agree. At the last meeting of the American Laryngological Association, the radical treatment of nasal myxomata was the subject of considerable discussion. Sajou Roe, Jarvis, Rice and Mulhall agreeing that in many cases a portion of the middle turbinated must be removed in order to get thoroughly to the point of attachment of the nest of polyps beneath it. Sajou, operates with rongeur forceps and applies electro-cautery; Roe uses the saw of his own device; Jarvis and Mulhall use Jarvis' snare and small searching forceps. The operator, if possible, should have each of these instruments at hand, as each will sometimes be found the best. For removing the edge of the middle turbinated, I use generally the reel-snare. When the edge of the bone cannot be caught in this way the rongeur forceps are used with advantage. I have found this little instrument so useful in various nasal operations, that I wonder now how I did without it. Since severe reaction and, it is said, even fatal meningitis, has followed removing the shell of the middle turbinated careful antiseptic applications should precede and follow the operation. I use the solution of Seiler's antiseptic tablets and sometimes of bichloride of mercury. As an application to the base of the polyp, nothing is better than the electro-cautery, though chromic acid fused into a bead on the end of a probe can be used with equally good effect.

After removing the polyp Cohen recommends washing out the nose with distilled extract of hamamelis in alcohol. Sprays of alcohol, first diluted with three parts of water and gradually increased to pure strength, are also advised by McBride, Griffin and others.

There is another form of tumor largely myxomatous in character, which originates in the nose and hangs into the post-nasal space. It is described by most authors as myxo-fibroma of the naso-pharynx. Such growths in my experience are not usually associated with anterior nasal-myxoma. They are generally single though sometimes bilateral. I recently removed a large myxo-fibroma from each post-nasal passage of a little boy thirteen years old. He had no other nasal affection. The growths were attached, as they usually are, near the margin of the nose posteriorly. I removed them with the Jarvis snare introduced through the nose, and guided by the rhinoscopic mirror. These growths are harder than true myxoma and not so hard as fibroma; they are usually distinctly pedunculated and move about with the movements of the palate and with change in position of the head. Nasal obstruction is generally the first symptom observed; the voice is changed and pressure on the mouth of the eustachian tube often causes deafness and tinnitus aurium. Such growths are generally invisible by anterior examination, and the diagnosis should be made by the rhinoscopic mirror. When this cannot be used, the finger introduced behind the palate and directrd to the post-nasal cavities will give knowledge of the tumor and its consistence. But usually, even in children (not infants) a rhinoscopic view can be obtained. The attachment and consistence of the growth can be ascertained by passing a probe through the nose, directing its manipulation with the rhinoscopic mirror; if the probe is wrapped at the end with absorbent cotton and dipped in a four to a ten per cent. solution of cocaine, it prepares the parts at the same time for operation.

Such tumors should be removed by the snare,—I prefer to introduce Jarvis' snare through the nose; during introduction the wire should be drawn into a small loop and when the snare is in place, it should be pushed out to the required length. Of course cocaine should first be applied which can best be done by the probe introduced as just described.

In the case of one, a very nervous lady, I found much assistance from a dose of valerian given by her family physician just before she came to my office.

If, for any reason, the snare cannot be used, the electro-cautery may be applied either through the nose or post-nasally. Where the growth hangs down over the edge of the soft palate, it may be grasped

with forceps and pulled out, but this method is inferior to the snare.

There is not much tendency to recurrence, but as a matter of precaution it is well to touch the place of attachment of the polyp with chromic acid or the electro-cautery.

The following case of post-nasal polyp hanging into the pharynx and causing persistent vomiting, with great emaciation and exhaustion, presents some unique features: A negro man between twenty-five and thirty years old referred to me through the kindness of a general surgeon to consult whom he had come from a neighboring county. The patient was extremely emaciated and so weak that he could walk only with difficulty, and with the help of a stick. He breathed through his mouth and spoke as if his mouth was full. On looking into his mouth a tumor was seen lying on the tongue and looking exactly like a double tongue. At first sight it seemed to be attached low down in the pharynx, but more minute examination showed it to hang from the post nares and to be bent over the palate. The portion in the mouth was reddish brown in color, firm in consistence and free from sensibility on touch or pressure. It was very movable and evidently attached by a narrow base. The patient gave a history of nasal obstruction for about two years, and of nausea becoming more and more intense for the last six months, until for some eight weeks past he had been unable to retain anything on his stomach and his emaciation and weakness were the consequence. On the day before I saw him in the course of his vomiting he had thrown up into his mouth the tumor which now rested on his tongue. Being uncertain as to the vascularity of this tumor, I determined to remove it with the electro-cautery loop; the wire was introduced over the end of the growth in the mouth and pushed up as far as possible into the post nasal space; the mass so included was then burnt off without pain or hæmorrhage. The remaining base of the tumor was destroyed by the electro-cautery introduced through the nose. It was attached near the posterior margin of the right nasal chamber. The portion removed through the mouth was submitted to Dr. Louis Frank for microscopic examination and he reported as follows: "A tumor somewhat pear shaped, three and one-half inches long, and three-quarter inches in diameter in its thickest part, having at the ends a soft feeling, but in the central part feeling hard and nodular. On section the tumor is composed of numerous cystic (?) cavities filled with a cheesy material that is non-adherent and which easily rolls out. Microscopically the section shows large alveoli or cyst cavities filled with a substance partly cellular (round cells) and partly composed of a granular detritus, the remains of pre-existing cells. These cells stain very poorly. The cyst wall is lined with columnar epithelium, some goblet cells being present. The walls of the cyst are composed of a dense, hard fibrous tissue, containing few blood vessels. Section through portions of the tumor not containing the cyst, show only a fibrous structure.

"Diagnosis: Fibro-cystic polyp."

In the light of this report and knowing the tendency to cystic degeneration, characteristic of nasal myxoma and myxo-fibroma, it seems to me probable that this growth was a genuine myxo-fibroma which had undergone cystic degeneration.

THE PATHOLOGY OF OLD AGE.*

R. H. GRUBE, M. D.

The term old age is a very indefinite one for the reason that the systemic changes which cause the senile state take place at different ages in different people. The broken-down, decrepit day-laborer, whose life has been one of hard work and poor nourishment is more senile at fifty than a Gladstone at eighty. It is this senile condition then that will receive our consideration this evening.

As a basis for what I have to say I have taken the reports of the surgeons of the five largest National Military Homes, and my own observations during several years' service in the largest home. These five homes have an aggregate membership, in round numbers, of twenty thousand old soldiers, the average age of whom is about sixty-five. The total number of deaths at these homes occurring during the year ending June 30th, 1891, was 950. Select

*Read before the Allegheny County Medical Society.

ing some of the principal causes of death they are as follows:

Heart lesions	151
Pulmonary Tuberculosis, including Fibroid Phthisis	122
Cerebral Hemorrhage	67
Senile Debility	62
Cancer	36
Bright's Disease	37
Pneumonia	37
Meningitis	20

As I will revert to these figures from time to time, I will not comment on them here.

I will follow the physiological plan in treating of the subject before us; but before taking up the individual systems I will call your attention to the senile state in general. The senile state is essentially one of general atrophy; the stature and weight decrease; mental and nervous activity lessen; and hair follicles atrophy as do the gladular and muscular tissues throughout the body. The only general tissue which does not atrophy is the connective tissue which, being nature's repairing cement predominates everywhere. This senile state is not pathological but physiological, for the person may have all of these evidences of senility and yet have good health.

Speaking in the language of the evolutionist we may say that the person who has resisted the enemies of life until he has reached old age, has demonstrated his fitness to continue to live until the natural period of human life, so we find in old age comparative immunity from infectious diseases. In my list there no case of smallpox or typhoid fever and none treated. However this rule is not without exceptions, Louis XV. of France died of smallpox at the age of sixty-five, and I have seen varioloid in a patient over eighty. In this connection may be noted the large toleration of morbid processes and the lack of sympathetic reflexes rendering these processes so obscure that they are often overlooked. I have many times had to bear the mortification of a post-mortem diagnosis because of this, and that too, after a most diligent search for the cause of the trouble. I call to mind several cases illustrating this point, some of which I will relate briefly. The first of these was that of a very old man, with a peritonitis caused by a perforated cæcum. He suffered no pain. I aspirated several times, removing two or three pints of most offensive pus each time, and the patient finally died of exhaustion. Another was a perforating ulcer of the duodenum—post-mortem diagnosis—where the contents of the stomach escaping caused adhesive peritonitis, burrowed a channel and "pointed" two inches below the umbilicus. A third case was one of cerebral hæmorrhage causing deep coma, and death in seven hours. The hæmorrhage was in the interior of the Pons Varolii and had completely destroyed the tract of connection between the brain and cord. We see the lessened sympathetic reflex, too, in the narrowed variation of the temperature even in inflammatory conditions. A temperature of 103° is unusual, and I scarcely remember to have seen it at 104°. Nor is the temperature lowered as might readily be supposed. A lowered rectal temperature in old age will most certainly indicate a lesion of some sort, usually visceral. These conditions render diagnosis in diseases of old age difficult, and, as I have already said, many times the real trouble is not discovered at all during life. Thus a patient in one of my wards complained of all sorts of aches and pains with nothing definite enough to base a diagnosis on, and came to be looked upon as a chronic grumbler. He died unexpectedly and the autopsy showed an abscess on the under surface of the liver, which had burst into the peritoneal cavity.

While diagnosis is rendered more difficult in old age, the diligent and skilful searcher will be more apt to find the morbid process at this age than any other, because they are more marked, as the dead-room abundantly testifies.

That was a wise saying of Wilks, that "a man is no younger than his arteries." I have already remarked the senile condition is essentially a general atrophy. In this the heart is to be excepted, as it alone of the muscular system is hypertrophied. The causes for this is the lessened elasticity of the arterial walls and the narrowing of the arterial lumen and the deposit in the arterial coats of atheromatous products, requiring a greater force to propel the blood through the vessels. That disease of the circulatory system is the greatest source of danger in old age, is testified to by my table. Of the 950 deaths, 151 were from the various heart lesions, and 67 from cerebral hæmorrhage, 218 in all. Atheroma is the chief disease of the circulatory system, and is often attended by extensive calcification of the aortic valves, interior of aortic walls, and the coronary arteries.

Next to atheroma and its attendant phenomena, fatty degeneration of the heart is the most frequent morbid heart condition of old age. We must here distinguish between fatty degeneration or the change of muscular tissue into fat, and the deposit of fat between the normal muscular fibres. The presence of the arcus senilis is said to be diagnostic of fatty heart. I have never verified this point. A better diagnostic sign is the weakness or absence of the systolic sound which, being mainly produced by muscular contraction, is impaired. Fibroid degeneration also occurs. In this condition the muscular fibres are replaced by fibrous connective tissue. Either form of degeneration produces sudden death, either by rupture of the heart wall or simple paralysis from over distension. I may say in passing that sudden death is nearly always caused by heart failure and very rarely by cerebral hæmorrhage, where, though the hæmorrhage be extensive, the patient may live several hours or even days.

As the lungs are constituted of the most delicate of tissues, we would natural expect marked changes in them in the senile period. The first thing that strikes one on opening the chest of an old person is the marked pigmentation of the lung surface, giving it a mottled black and pink color. This pigmentation is a deposit of carbonaceous particles having been inhaled. The microscope shows a partial disappearance of the alveolar septa causing an enlargement of the alveoli by partial coalescence. This with the fixation of the chest, another senile change, accounts for the emphysema that old people experience on making exertion. Another thing worthy of note is revealed by autopsies made on the bodies of old people, and that is the large number of old tubercular lesions which were not suspected during life. These lesions consist of pleuritic adhesions, old cicatrized foci and scattered gray tubercles. Active tuberculosis is not a prominent disease in old age, and when it exists it is apt to be exceedingly chronic. Of our 950 deaths, there were but 122 from phthisis and fibroid phthisis together. As further showing the truth of this statement the tenth U. S. census showed that of 91,270 deaths from consumption during the census year 25,610 were of persons between 20 and 30, while but 8,222 were over 65. Again of a block of 2,800 examinations—carefully made—for admission to the National Military Home, but 260 were found to have clear indications of tubercular impairment of the lungs.

The statement that "pneumonia is the scourge of old age," made by high authority is not borne out by our figures, as but 37 of the 950 deaths were caused by this disease. Loomis makes the astonishing statement that nine out of ten of those who die after the age of 65, die of pneumonia. Upon what such a statement is based I cannot see. Nor is lobar pneumonia different in any marked degree from the same disease in younger people. The initial chill is not so marked nor is the temperature so high, but the crepitant or more generally subcrepitant rales, the rapid breathing and the solidification are present and would be found if looked for. I never regard the examination of an old person complete, no matter what the trouble until the chest has been examined.

The greater toleration and lessened sympathetic reflexes spoken of before, mask the subjective symptons of the patient sometimes unless the physical examination be made. Neither is the prognosis in these cases much graver unless there is great debility from some pre-existing disease, when pneumonia is but the closing act. Two other facts are worth noting in this connection, one is that defervescence by crisis is rare among the aged; and the other is that muttering delirium is almost prognostic of a fatal termination.

The changes in the alimentary canal are quite as well marked as those in any other part of the body. The teeth are lost; the mucous and peptic glands of the stomach are lessened in number and size; the intestinal villi are fewer and the intestinal wall thinned, except the colon, which is frequently dilated and its walls thickened by the replacement of the muscular tissue by connective fibrous tissue. As a sequence of these changes we are not surprised to find a weakened digestion and poor assimilation of food in these people. Constipation is an almost constant accompaniment of old age. The frequency of cancer especially of the stomach and liver is shown by the large number of deaths due to cancer, 33 out of 384 reported from the Central or Dayton branch alone. According to my own observation the majority of these were doubtless of stomach and liver. Of the various diseases of di-

gestion and assimilation I can say nothing here, as the subject is too extensive. You all know how difficult they are to handle and can subscribe heartily to Abernethy's statement that a man cannot be induced to attend to his digestive organs, till death, or the fear of death stares him in the face." Diarrhœa is a frequent and troublesome disease in old age and sometimes one most difficult to control. As an adjunct to the alimentary canal the liver may be considered here. Fatty degeneration or the "nutmeg liver" is almost always present in senile autopsies. Cirrhosis is extremely rare, which I think remarkable in the face of the generally accepted theory of alcoholism as the chief etiological factor in its causation, since a large number of the men in the military homes are confirmed alcoholics.

Bright's disease, like phthisis, is apt to be chronic with old people and is generally of the fibroid character, and so is likely to go undiscovered, as the symptoms are so masked as to be misleading, and the patient be treated for indigestion, neuralgia, rheumatism, etc. At the risk of boring you I will give the history of one such case in detail: W. R., age 70, had been under treatment for about six months for chronic dyspepsia. Gives history of long-standing rheumatism. Complains of pain in stomach; persistent vomiting and headache and insomnia; no treatment seemed of any avail in relieving his nausea. He was emaciated, abdominal veins enlarged and liver seemed contracted. Repeated examinations showed both albumen and casts, but in moderate quantities only. Patient finally died of exhaustion. Autopsy: Body very much emaciated; lungs œdematous; hypertrophy of left ventricle, valves of left heart and commencement of aorta studded with minute patches of atheroma; liver contracted to little over half its normal size; walls of stomach thicker than normal and more opaque; colon contracted throughout entire length, at some points seemingly almost closed, the coats thick and fibrous; the wall of bladder also thickened and opaque; left kidney contracted and fibrous on section; right kidney larger, but also fibrous, cysts scattered over surface of kidneys, microscopic examination of kidneys shows glandular and epithelial elements crowded and replaced by fibrous tissue; the walls of the arteries thickened and their lumen diminished; 37 of our 950 deaths were caused by Bright's disease. Of the other morbid conditions of genito-urinary tract I need only mention the senile prostate which, with the allied cystic troubles, belongs to the domain of the surgeon.

The most distinctively senile change of all is the degeneration of the brain and nervous system in general. In the brain the sulci become shallower, the gray matter thinner, and the brain as a whole shrinks. This shrinking is compensated for by an increase of the ventricular fluid and the subarachnoid fluid which on exposing the brain surface has an opaline appearance; corpora amylacea appear in the thinned cortex. In the cord and nerve trunks many medullary sheaths disappear, giving the sections the appearance of being full of minute punctures. The conductivity of the nerves is lowered and consequently reflex action is lessened. There is gradual loss of mental power, memory and attention suffering most. An interesting point here is, that the memory for events long passed, is better than for more recent events. The old persons will tell you in tiresome detail events which happened when they were young, but cannot remember what they had for yesterday's dinner. When these changes are exaggerated we have either softening or sclerosis, ending, of course, in dementia; or in the spinal tract scleroses of various ones of the physiological tracts. Of the changes in the nerves of special sense I need not speak.

And now, gentlemen, we will turn from a prosaic, and to me not very satisfactory, picture of the changes of old age, to a pen-picture drawn by a master hand.

"The sixth age shifts
Into the lean and slippered pantaloon,
With spectacles on nose, and pouch on side,
His youthful hose, well saved, a world too wide
For his shrunk shank; and his big manly voice
Turning again toward childish treble, pipes
And whistles in his sound: Last scene of all,
That ends this strange eventful history,
Is second childishness, and mere oblivion;
Sans teeth, sans eyes, sans taste—sans everything."

The Southern Surgical and Gynecological Association will hold its fifth annual meeting in the city of Louisville, Tuesday, Wednesday and Thursday, November 15, 16 and 17, 1892, under the presidency of Dr. J. McF. Gaston, of Atlanta. Members of the medical profession are cordially invited to attend.

TWO PRACTICAL SUGGESTIONS FOR ANALYSTS OF URINE.

By LOUIS FAUGÉRES BISHOP, M. D.

Use a proper specimen glass. Three years ago, when junior assistant at St. Luke's Hospital, I became dissatisfied with all the forms then in use, and, after unsuccessful search for one that was satisfactory, I finally designed one for use in the hospital. This has proved very satisfactory to each succeeding generation of juniors and has been adopted at other hospitals.

The "St. Luke's model" consists of a cylindrical glass resembling that commonly used for taking specific gravity, but larger and constructed with a wider foot and a lip for pouring. The bottom is slightly concave instead of the convex form that the maker naturally gives to such vessels unless warned not to.

The advantages of the cylindrical over the usual conical form are practical and important. The specific gravity can be taken without disturbing the sediment, and the bulk of the sediment can be more easily estimated.

Every hospital interne falls into the habit of completing his analysis, except the microscopic work, and then doing that with greater or less care as indicated by the previous tests. With the conical form of glass this is attended with serious disadvantage, as the urine must be put into another vessel to find its specific gravity. Another disadvantage of conical glasses is that casts adhere to the sides in settling.

The best practical method for estimating the quantity of sugar in urine is by the fermentation of a specimen until the sugar is entirely destroyed, and then determining how much has been disposed of.

Take two four-ounce bottles of urine; cork one tightly; into the other drop one quarter of a cake of compressed yeast (Fleischmann's). Stand in a warm place until the glucose in the latter has been destroyed as shown by Fehling's test. The number of degrees of difference in specific gravity will equal approximately the number of grains of sugar to the ounce of urine.

The specimens might be weighed and the sugar estimated by a simple arithmetical calculation, but the use of the urinometer is really only a simpler method of weighing. The degree-grain ratio expressed above is found to be nearly correct (Roberts).

I have devised the following formula which can be used in the intervals between the estimations in well-marked cases of diabetes: Divide 880 by the number of ounces of urine passed in twenty-four hours. To the result add 1,000, and subtract the sum from the specific gravity of the urine. The result will be the number of grains of sugar to the ounce of urine.

The primary number, 880, may be, for greater accuracy, altered to suit exactly individual cases as determined by experiment.

For example, suppose a patient to pass 100 ounces of a specific gravity of 1.030. $\frac{880}{100} + 1{,}000 = 1{,}008.8$. $1.030 - 1{,}008.8 = 21{\cdot}2$. The patient has about twenty-one grains to the ounce. Now, if in this individual case the result was found to be too far from truth, a suitable number would be substituted for 880, which, though the best coefficient for general use, yet is not so good for particular cases as one that may be determined by experiment.

SAW-WOUND OF THE ELBOW.

A. M. CARTLEDGE, M. D.,
LOUISVILLE, KY.

Several weeks ago a young man while engaged at some work in a saw mill, fell across a circular saw striking his arm, the saw cut extending across the posterior aspect of the elbow joint in a transverse direction splitting down through the olecranon process, and nearly through the condyle of the humerus; the joint proper was not disturbed; at least you could see the action of both bones of the forearm. It was a typical case for ordinary resection of the joint: After, however, examining more carefully, I concluded I would drain the joint and practice a little experimental surgery on it, having such faith in thorough drainage and asepsis. I drew the triceps down, getting the proper approximation, stitching it with about eight or ten sutures to the base of the olecranon process, which had been entirely sawn through; washed it out with 1-5000 bichloride solution, and put the arm up in not quite complete extension, thinking that if ankylosis occurred, I would have an

arm that would have the carrying power developed in a most marked degree. Drainage tube was removed on the tenth day; the dressing I removed on the fourteenth day, that is the second dressing, and was surprised to find the wound nearly healed, pronation and supination perfect.

This case, I think, from a surgical standpoint, is extremely interesting, and, as far as I know it is entirely unique. As I understand, this class of injury is always subjected to resection.

SYMPHYSIOTOMY, WITH THE REPORT OF AN OPERATION.*

By BARTON COOKE HIRST, M. D.

Symphysiotomy has as remarkable a history as any procedure in surgery. Suggested for the first time in the Surgery published by Pineau in 1598, and first performed upon a living woman in 1777, the idea may be said to be three hundred years old, while its practical application dates back more than a century.† From the year of the first operation until 1858 symphysiotomy was performed 85 times in different parts of the Continent of Europe and once in England with a mortality of 33 per cent. The frequency of the operation diminished after the first few years until in 1858 it had practically died out. It was revived, however, in Italy in 1866, and in the succeeding twenty years 70 operations were performed with a mortality of 24 per cent. Italy continued to be the exclusive field of the operation until a year ago, when it was again tried in Paris by Pinard, whose interest in it was aroused by a visit of Spinelli from Italy. Ten operations have since been performed in Paris, two in Dresden, and one in Strasburg. From January 1, 1886, there have been 52 operations with only a single death, due to septic infection before the operation was undertaken. Twenty-three symphysiotomies have been done already this year, and the last 34 women have all recovered.

We owe the introduction of symphysiotomy in this country to Dr. Robert P. Harris, who, as well known, has long been interested in the subject, and at the recent meeting of the American Gynecological Society in Brooklyn read a paper tracing the development of the operation, showing by the most laboriously collected statistics the present brilliant results achieved by it, and demonstrating, by the description of typical cases, its utility in labors otherwise insuperably obstructed by a contracted pelvis.

Ten days after Dr. Harris's paper was read, on September 30th, the first operation in this country was performed by Dr. Charles Jewett, in Brooklyn. Three days later it was again performed at the Maternity Pavilion of the University Hospital in this city.

The position of symphysiotomy is now established beyond a doubt. Its modern revival I believe to be the most important advance in obstetric surgery since the general adoption of abdominal section for the treatment of early extra-uterine pregnancy. It is applicable in contracted pelves with a conjugate over 67 mm., and, therefore, should be the method employed in almost all cases of the kind in this country, for a greater contraction of the pelvis is rarely seen among us. It should, moreover, almost entirely displace the Cesarean section for a relative indication. It is a much simpler, an easier, and a safer operation. This is also the opinion of Leopold, who cannot be accused of prejudice against Cesarean section, with his brillant record in that field.

There is and will be for some time, perhaps, an objection to the operation from those who have had no experience with it, on the ground that sufficient space cannot be thus gained. In answer to this objection is the fact that the pubic bones may gape 7 cm. after their separation, and the statement of Morisani, that the conjugate is thereby increased from 1.3 to 1.5 cm. But an absolutely conclusive answer is furnished by the subjoined clinical records of some typical cases.

*Leopold's First Case.**—A dwarf, 135 cm. tall, with the following pelvic measurements: Sp. il., 22 cm.; cr il., 24 cm.; tr., 28 cm; conj. ex., 17½ cm.; conj. diag., 8½ cm.; conj. vera, 6½ cm. She had been delivered thrice previously, twice of dead children, once by the induction of premature labor. After a labor of seven hours and twenty minutes, ushered in by rupture of the membranes, symphsiotomy was performed with the head above the brim. In ten minutes the

*Read before the Philadelphia County Medical Society, October 12, 1892.

†R. P. Harris: Amer. Syst. of Obstet., vol. ii. p. —

*Centralbl. f. Gyn., 1892, No. 30.

child was extracted with forceps. The head was of normal size (transverse, 9½, 8½; circ., 34).

*Leopold's Second Case.**—A woman, delivered once before by craniotomy. The pelvic measurements were as follows: Sp. il., 23; cr. il., 25; tr., 30½; conj. ext., 16; conj. diag., 8½; conj. vera, 6½. Labor began in the evening; membranes ruptured seven hours later; operation three hours later with head above the brim. Extraction of the child in ten minutes with forceps. The head had a circumference of 35½ cm.

Porak's Case.†—A primipara with rachitic pelvis, conjugata diagonalis being 9.6 cm., and pelvis presenting some asymmetry, very likely from scoliosis. Labor began on June 10th. About twelve hours later the membranes ruptured, and from eight to ten hours afterward the os was completely dilated. The head rested above the brim of the pelvis. Forceps was applied, but all efforts to engage and extract the head failed. The symphysis was opened, and the head then extracted "with the greatest ease" by forceps. Recovery.

Freund's Case.‡—A woman in labor six days; water drained off for two days. After opening the symphysis the head was delivered in fifteen minutes without instruments. There were two previous deliveries, one of a dead and one of a living child. The pelvic measurements were: Sp. il., 24½; cr. il., 27; tr., 31; conj. ext., 18½; conj. diag., 10 cm.; conj. vera, 8½. the child's head after birth was found unusually large and hard. B. T., 10 cm.; B. P., 11 cm.; F. O., 12 cm.; M. O., 14 cm.; S. B., 10 cm. Circumference, O. F., 37 cm. Recovery.

Jewett's Case.§—The first symphysiotomy in America, performed by Dr. Charles Jewett, of Brooklyn, September 30, 1892. Woman, a native American, primipara, fell in labor, September 30, 1 o'clock, A. M.; at 10 A. M. the occiput appeared at the vulva, but was held fast by an approximation of the ischiac tuberosities, reducing the bisischiac diameter to three inches. Nine hours later Dr. Jewett first saw the patient. The forceps had been vigorously used in vain. Symphysiotomy was performed two and one-half hours later, or eleven and one-half hours after the impaction of the head at the outlet. Delivery was effected by supra-pubic pressure and by shelling the head out with the fingers in the rectum. The woman is now in good condition, but unfortunately the child died twenty-four hours after birth, from the compression to which the skull had been subjected during its long impaction in the pelvis.

The University Maternity Case.—A German woman, aged nineteen, pregnant for the first time, was admitted to the University maternity, September 24th. The examination by the resident physician and the students showed the child to be presenting by the head, the back to the right. The pelvic measurements were: Sp. il., 25 cm.; cr. il., 27 cm.; tr., 30½ cm.; conj. ex., 18 cm

The internal examination made by myself just before operation showed the conjugata diagonalis to be 9½ cm.; conj. vera, 7½ cm. The girl fell in labor Saturday morning, October 1st. The pains, recurring all day, on Sunday became very vigorous. On Monday morning, when my attention was first called to the case, the contraction-ring was high, the uterus stood almost straight out from the body, and the child's head was movable about the superior strait. The membranes were unruptured. By no justifiable degree of force could the head be made to enter the pelvis. The fetal heart-sounds were good. It was evidently, therefore, a choice of Cesarean section, craniotomy, or symphysiotomy. The last was done, with the assistance of Dr. R. C. Norris and the valuable advice of Dr. R. P. Harris, who kindly consented to be present. The child was delivered with forceps in one hour and four minutes from the time the operation was begun. I purposely took my time, for the os was only the size of a dollar, and was very rigid, so that a more rapid extraction would have seriously injured the cervix. Head measurements: B. T., 7½; B. P., 9; F. O., 12; M. O., 13½; circ., 34. Mother and child are well.

The technique of symphysiotomy is simple and easy. After thoroughly cleansing the field of operation and disinfecting the vagina as well, a short vertical incision is made on the abdominal wall, reaching to about three-quarters of an inch above the symphysis. The attachments of the recti muscles are severed just sufficiently to admit one finger. The forefinger of the left hand is passed under the symphysis, and upon this as a guide the curved knife of Galbiati is inserted until its beak projects under and in front of the symphysis. The joint is then cut upward and outward. To avoid injury to the urethra, a metal catheter is inserted and pressed by an assistant downward and a little to the right, while the knife is placed a little to the left; but with Galbiati's knife I should think that there is little likelihood of cutting the urethra or the plexus of veins in its neighborhood. I at first thought that an ordinary probe-pointed, curved bistoury would serve my purpose well enough, but I quickly laid it aside, and was glad to avail myself of Galbiati's knife, an illustration of which is appended, which I happened to possess—at the time one of the three, I believe, in the country.

As soon as the joint has been severed, the wound should be covered with iodoform gauze, and then the child extracted with forceps, or allowed to be delivered naturally, as seems best in the individual case. I should, I think, almost always prefer the forceps. It is well to have the trochanters supported by assistants during the passage of the child through the

*Centralbl. f. Gyn., 1892, No. 32.

†Annales de Gynécologie, September, 1892.

‡Mllerheim: "Ueber die Symphysiotomie," Centralbl. f. Gyn., 1892, No. 30.

§Personal communication.

pelvis, so that the sacro-iliac joints shall not be injured.

As soon as the delivery is completed the wound is sewed up, the lowest stitch, if desired, passing through the top of the symphysis. How the whole symphysis can be stitched up, as Leopold claims to have done, I do not understand. After closing the wound and dressing it, rubber adhesive strips are placed around the hips and the lower abdomen, and a tight binder applied. The symphysis unites surprisingly soon, and three weeks after the operation the patient can walk as firmly and as well as ever.

There is only one disturbing thought in connection with the introduction in this country of an operation destined to do so much good. The charge of superficiality lies with some justice against us. We are too ready to reach out toward the top without a sufficient basis of solid preparation, and I fear that symphysiotomy may be undertaken by many who cannot correctly measure a pelvis and who have not the experience to decide whether a head can pass through the pelvis in which it is about to enter or in which it is engaged. There is consolation, however, in the reflection that if symphysiotomy should be done needlessly the results are not likely to be so disastrous as in the case of Cesarean section, which, to my knowledge, was done several times unnecessarily during the excitement produced among medical men by the improved results of the Sänger operation.

SYPHILIS AND GENERAL PARALYSIS.

J. Bonnét, *Thèse de Paris*, 1891, (Abstr. in *Schmidt's Jahrb.*) Out of the eighty-one paretics in the Villejnif asylum the author found fifty-four who had certainly had former syphilis, eleven who probably had had it, and six who possibly had. Ten cases were apparently non-sypniletic. He hence considers from 66.6 to 80.2 per cent. thus affected, and concludes that the more carefully we search for syphilis in paretics the more general we find it. Out of one hundred and four other insane patients there were ten certain, four probable, and three dubious cases of syphilis. Bonnet does not conclude that syphilis is the invariable antecedent of paresis, but calls it the most important cause. As adjunct causes he considers alcohol and hereditty the most important.

FOREIGN BODIES IN THE CORNEA.*

By EDWARD JACKSON, M. D.,

PROFESSOR OF DISEASES OF THE EYE IN THE PHILADELPHIA POLYCLINIC; SURGEON TO WILLS EYE HOSPITAL.

The history given by the patient, as to a foreign body in the cornea, is often worthless. If the foreign body is but partly imbedded, and the projecting portion hard and angular, so that every movement of the lid causes a scratching of the conjunctiva lining it, the patient, of course, immediately notices its presence, and can give a correct and definite history of its occurrence. But if the foreign body be deeply imbedded so that it does not touch the conjunctiva of the lid, or if it lie with a perfectly smooth surface presenting to the lid, its entrance may not be noticed, or the momentary disturbance caused by it may be so slight as to be forgotten before the secondary effects of its presence draw attention to the eye, and even if those secondary effects are ascribed to it, and the foreign body itself perceived, it may be supposed to have entered the eye at a time considerably later than was the case. Often, however, the patient will, on account of the gradual advent of symptoms of irritation, ascribe them to an entirely different cause.

Again, very many patients come with the impression that a foreign body is in the eye, from the irritation—the sensation of scratching—caused by a simple conjunctivitis. And these, having thought the matter over carefully and repeatedly, can usually tell just when and how the mythical body lodged there. And they even go so far as to accurately locate it, by picking out some spot on the iris not before noticed, and regarding it as the offending object.

For the diagnosis of a foreign body in the cornea we must depend on, what generally is sufficient basis for a diagnosis in diseases of the eye, the results of our examination of the patient. If the foreign body is comparatively large the most casual glance may reveal its presence, but often there is need for special methods and a prolonged search before its presence or

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*Read before the Philadelphia County Medical Society, October 12, 1892.

absence is established; and even where its presence is perfectly obvious at the first glance these same methods must often be employed to make sure that we have completed its removal.

In the search for the foreign body the important idea with reference to the illumination of the eye is that it shall be thoroughly under the control of the surgeon, so that he may either strongly illuminate the cornea itself and view it against a dark background of unilluminated iris and pupil, or can illuminate the background, leaving the cornea in comparative darkness, and depending on the interruption of the light from the background, which any opaque foreign body will cause, to reveal its location. This is the advantage that the so-called "oblique" or "focal" illumination in the dark room possesses over inspection by an ordinary diffused light.

The shifting of the point of view so as to bring the foreign body into the area of most favorable illumination is essential to any thorough search, whatever method is employed. By focal illumination foreign bodies of light color will be best seen when strongly illuminated against the black pupil as a background; while if the foreign body is dark it is better to strongly illuminate the iris behind it.

We may get an illuminated background against which a foreign body will usually appear as a black speck by throwing the light into the eye with the ophthalmoscope mirror held several inches in front of it, and shifting the position of the eye or the point from which it it viewed so as to obtain the fundus reflex through the different parts of the cornea.

An excellent model for searching for the foreign body, and one that has the advantage of being available during its removal, is to look for the interruption that it causes in the reflex obtained from the corneal surface. To do this, place the patient facing a window with a large open sky space, while the surgeon takes his position so as to obtain the reflection of the sky space from the surface of the cornea, a very good position being to stand behind the patient, looking down on the cornea. The patient's eye is then turned from point to point, so that the reflection is obtained from all parts of the cornea in succession. If the window with clear sky space is not obtainable, a piece of plain white paper or card-board strongly illuminated, and held close in front of the eye to be examined, will furnish the required reflex from the corneal surface. The essentials are that the reflex shall be bright, uniform, and large enough to enable the observer to go rapidly over the whole cornea without missing any part of it.

If on any part of surface there is an irregularity, as an ulcer or a foreign body, this will cause an interruption of the reflex, and be immediately noticeable. A great help in making such irregularities prominent is the careful drying of the cornea with a little absorbent cotton, a method to the full value of which my attention was called by our fellow member, Dr. M. W. Zimmerman. The removal of all moisture does not impair the reflex from the sound cornea, but lays bare any irregularity or loss of substance, which, when filled with fluid, would give almost the normal corneal reflex.

Another aid to the detection of foreign bodies in the cornea is the use of a solution af fluroescin. A good solution consists of

Fluroescin	1 grain.
Sodium carbonate	2 grains.
Distilled water	1 fluidrachm.

A single drop of this is placed on the suspected cornea, and after two or three minutes the excess is allowed to be washed away by the tears. It is then found that while on the uninjured cornea not the slightest effect has been produced, the corneal tissue in the neighborhood of any recent abrasion has been stained a noticeable light green. This discoloration at once directs attention to the locality of the injury, and the stained tissue furnishes a background against which any foreign body of dark color is more readily seen.

While the reception of a foreign body in the cornea may not be noticed, and during the first few hours the pain and redness resulting from its presence are apt to be quite slight, its continued presence provokes a reaction which increases in severity until it is gotten rid of. At first the redness will be confined to the vessels of the part of the peri-corneal zone nearest the foreign body, and its location will then often guide us to the site of lodgment. Later, it extends until the whole conjunctiva and the deeper tissues of the globe become hyperæmic, when it becomes of little diagnostic value. With the in-

creased vascularity comes increased pain and tenderness.

Self-cure, in the cases of a foreign body in the cornea, takes place by suppuration of the adjoining tissue to such an extent that the softening loosens the foreign body and allows it to be rubbed off by the movements of the lids—a slow, painful process, that probably few persons are solid enough to submit to without seeking competent aid for its removal. In a few cases, however, the inflammation subsides, the foreign body becoming surrounded with fibrous tissue that tolerates its presence, and in rare cases it is possible for a foreign body to remain in the cornea a long time without provoking any reaction. I have met with three cases in which foreign bodies were thus retained for periods varying from one to eighteen months.

Of the removal of foreign bodies from the cornea in general, little need be said. The introduction of cocaine as a local anæsthetic has enormously simplified it. There is, perhaps, some danger now of being led by the passive demeanor of the patient to indulge in unnecessary manipulation of the parts. The thorough cleansing of the actual cavity of lodgment, together with the scraping away of the bruised and lacerated tissue, is very important, but the promiscuous scraping of the neighboring surface in the attempt to catch a foreign body that is not clearly seen is always harmful if not dangerous.

When the foreign body enters with such force as almost to penetrate the cornea, and, to a still greater extent, when it projects into the anterior chamber, its removal becomes an operation of considerable delicacy and importance, on account of the danger of the premature escape of the aqueous humor and the scratching or puncture of the anterior capsule of the lens, causing traumatic cataract.

There applied a few month since, at the Wills Eye Hospital, a young man who had received a small chip of iron in the center of the left cornea the day before. Efforts had been made to extract it with a piece of magnetized steel, and with a penknife, but had been unsuccessful; whether they had driven the fragment deeper I do not know. He applied in the morning, and Dr. Pontius, the resident surgeon, finding that the aqueous was escaping and the anterior chamber shallow, had wisely, simply instilled atropine and closed the eye with a light bandage to secure rest. When the patient returned in the afternoon the swelling of the adjoining cornea had stopped the leakage of the aqueous, and the anterior chamber was of normal depth. The chip of iron was seen projecting from the posterior surface of the cornea into the anterior chamber.

The eye was placed under the full anæsthetic action of cocaine, and a broad, gradually tapering needle introduced at a little distance from the wound, in such a manner that its point entered the anterior chamber close to the foreign body and passed back of it. This point was held against the posterior surface of the cornea, the needle being steadily pressed forward sufficiently to keep the incision full and prevent the escape of aqueous. The foreign body was then dug out with another needle and the ordinary corneal spud. This was attended with the escape of some aqueous, but, with the broad needle held flat to shield it, any injury of the lens was prevented.

In such an operation the placing and steadily maintaining in proper position of the broad needle that acts as a shield is the most difficult part. For this purpose a needle which continues to broaden and becomes blunt and rounded on its edges, so that it ceases to act as a knife and more perfectly performs its function as a plug, might be a slightly better instrument than the ordinary broad needle. In this case the steady maintenance of the shield-needle in position was materially aided by causing the point to reënter the posterior surface of the cornea, and by introducing it in such a direction that the tendency of the patient to move the globe kept it pressed againstthe needle rather than withdrew it.

When a foreign body composed of or containing iron remains a few days in the cornea it is apt to leave a dark-brown ring of staining when it is removed. It is often difficult to decide whether the appearance is due to this stain alone or whether some portion of the foreign body also remains. On this account it is more satisfactory to remove the stain if this can readily be done, but any prolonged or extended scraping is not justified, for the stain is harmless and temporary.

The electro-magnet is of little use in removing foreign bodies from the cornea

because they are so firmly wedged that its force is entirely insufficient to dislodge them. There is, however, a special form of foreign body for which I have resorted to the electro-cautery, namely, grains of gunpowder, which have proven, when the attempt was made to extract them in the method of ordinary foreign bodies, to be so intimately associated with the adjoining corneal tissues as to render it impracticable to extract them in the ordinary way without too much laceration of tissue.

In the case of the patient shown this evening there were three such grains in the left cornea remaining after others were removed without difficulty from both corneas. These deeply imbedded and diffused grains were touched with a pointed electrode, and thus destroyed with the least possible damage to the surrounding tissues. The same method was applied to some of the grains that had been at the same time imbedded in the lids, brow, and cheeks, with the very satisfactory results shown.

VARICOCELE.

Mention of a new plan for the treatment of varicocele, prompts M. M. Latta to say for the last three years I have in three cases adopted the plan of passing an elastic ligature in front of the vas-deferens, but including veins and everything else, much as is done in the treatment of an anal-fistula. It is not intended to have the ligature cut its way out, and it is only left in until it is certain that the veins are occluded. Stout threads are fastened to each end of the elastic cord, and then by the aid of a large Hagedorn needle it is carried in and the ends drawn as tight as is thought desirable, and tied across with a strong thread. The patient must stand up until the ligature is passed. After that it makes no difference what position he assumes. The operation is practically bloodless and requires almost no time for its performance. There is generally some pain for an hour or two, and very little after that. The patient should lie in bed or on a lounge until the operation is completed, which will depend on how tight the ligature is drawn—in my own case it required from eight to ten days. No great length of time is lost, the operation is safe and the cure is permanent.—*Ind. Med. Jour.*

Society Reports.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Scientific Meeting, September 20th, 1892.

J. Chris Lange, M. D., President, in the Chair,

DIAGNOSIS OF TUBAL PREGNANCY BEFORE RUPTURE.

Dr. J. E. Rigg: About April 7th, 1892, I was called to see Mrs. A., aged 34, with the following history: Married twelve years, never had a child, though she miscarried once about seven years ago at from six weeks to two months. At the time I saw her she was suffering severe pain in lower part of abdomen more or less constant. At the last period had not changed to any degree, but had been suffering more than usual with soreness and pain in pelvis.

I may state here that she had suffered a good deal of pain in that locality for years, for which she had frequently sought relief by treatment without success; at this time there was a bloody discharge with more or less shreds of tissue.

Bimanual examination revealed the uterus little if any enlarged, no tenderness, the right tube and broad ligament somewhat enlarged, but movable. I thought it possible that she was pregnant, but could not satisfy myself fully on that point. Leaving an anodyne and ordering perfect quietude, I left for the night. I saw her again daily for three days, when the nurse showed me a piece of animal tissue resembling very closely a part of a placenta, with the statement that the trouble was all over now. Not feeling quite satisfied I mopped out the uterine cavity with a strong etheral solution of iodine. At this time I did not make a bimanual examination. For several days (I think about ten) she was quite comfortable, got up and went about her work, the discharge almost disappearing. I did not see her again until May 13th, when she looked quite pale and exhausted. I ordered her back to bed. She complained that the old pain had returned, but not so severe, and that it would last about three hours in each twenty-four and then be quite easy for the rest of the day; this

would come on each day about four o'clock. I returned, three days later, having been away from town in the meantime, and found about the same general condition.

Not feeling clear as to her condition I made another bimanual examination; at this time I found the apparent thickening in the right tube had developed into quite a distinct tumor, oblong in shape, movable, attached at one end to the uterus, on which it could be moved as a hinge. When drawn away from the uterus it would drag it with it but it could be moved in any other way without affecting it. The shape of the tumor, the fact that it was not inflammatory and attached to the uterus the way it was, and that it had enlarged so rapidly, together with a history of possible pregnancy and the discharge of what seemed to be placental tissue, which I was now convinced had been the decidua, pain at periods and pinched expression, left little doubt in my mind that I was dealing with a tubal pregnancy.

I informed her of the nature of the growth and asked that Dr. Buchanan see the case, and if he would concur, advised that she be operated on without delay. The following morning Dr Buchanan saw her with me, and concurred in my diagnosis. Accordingly, on the 21 inst., she was opened and the tube removed, it bursting in the delivery. The fœtus was not found, but the placenta was there, well marked. The case did not have any unfavorable symptoms in the process of recovery.

DR. BUCHANAN: Dr. Rigg deserves credit for having made a positive diagnosis of extra-uterine pregnancy in this case prior to rupture, and I believe it is the only case reported in this vicinity where the diagnosis was made previous to rupture of the sac and confirmed by the operation. When I was called to see the case, I fully concurred in the diagnosis and a few days later operated. The tube was found to be distended to the size of a large lemon. It burst while being drawn through the incision. The operation was attended by no difficulty and the patient made an uninterrupted recovery. I here exhibit the specimen, ovary, dilated tube and placenta *in situ*.

Diagnosis of extra-uterine fœtation before ruptnte is considered by many authorities impossible, but in this case it was positively made by Dr. Rigg before I was called.

DR. WERDER: I must congratulate Dr. Rigg on the correct diagnosis. I was present at the operation and examined the specimen. There was no fœtus in the tube after removal. The question would come up what became of the fœtus. There are two ways in which the fœtus could have disappeared. The first way is the death of the fœtus from some cause and absorption, and probably that is what happened in this case, that is tubal absorption. The fœtus may be expelled into the abdominal cavity and absorbed, and, according to some recent investigations in this matter, I believe this is rather a common occurence. Cases of the former kind terminate not by a sudden shock, as in case of rupture into the abdominal cavity; there is not that marked anæmia accompanying it, but at the same time there are severe pains and cramps. I had intended to demonstrate a specimen which I removed on the 16th of July, from a woman, who was practically moribund when operated on, but the specimen became spoiled and is hardly worth showing. It was a very beautiful specimen; the fœtus was intact and the placenta and tube were also in good condition. The first three or four days following the operation the patient was in very good shape; everything appeared to be promising; but on the third or fourth day diarrhœa commenced, which everything failed to control. She died on the eighth day, from exhaustion. This is the fifth case of extra-uterine pregnancy on which I have operated, and the only case I have lost.

ADVANTAGES OF SYME'S AMPUTATION.

DR. J. W. MACFARLANE: One of the resident physicians to the West Penn Hospital and myself each performed a Syme operation on the patient shown in these photographs. I believe there are few cases of double Syme amputation extant. In addition to the desire of showing you that case, the object in bringing it before you is this: In the report of the transactions of the State Society for 1891, Dr. Allis, in his Address on Surgery, condemns amputations that are done below the so-called point of election. He speaks of Pirogoff's and Chopart's but makes no mention whatever of

Syme's amputation, passes that without a word. Now in Western Pennsylvania at least, Syme's amputation is not only admissible but is considered an excellent amputation; then possibly next to this is Chopart's. Though the latter is often a nice operation and successful, it is not as popular with the profession as Syme's.

I have consulted an artificial limb manufacturer of this city, and he says there is no other stump as good as that furnished by a Syme amputation. The case that you have a photograph of is that of a young man from Beaver Falls, about twenty-one years of age, who was run over by a train. He had his feet on the rails and the wheels passed over them destroying the fore part of both feet. He was detained in the hospital longer than he would otherwise have been, for the simple reason that he had suppuration. It was no fault of ours, however. For the first twenty-four hours he threw himself around, removed the dressings, and finally poured milk over both stumps, and he was so intractable for awhile that we had to put him in a straight-jacket. With Dr. Murdoch's assistance, I did a Syme's amputation on a young man for gangrene of the foot. He refused, when he came in, to have anything done with the foot, and moist gangrene occurred. I saw that patient the other day and he was doing admirably, able to plant his heel firmly on the ground. This young man, before he left the hospital, was able to walk with the aid of two canes. Of course his gait is not artistic, but there is no other stump I know of which would enable him to go around in that way. Dr. Allis stated that it is impossible to walk except as a very old man. That was in eighteen hundred and ninety-one. In ninety-two the matter came up again before the State Society, and Dr. Price, of Philadelphia, who has, in his person, had amputation below the knee at the so-called point of election, went so far as to say that any one who would do an amputation of the foot, should be sued for mal-practice. Dr. Murdoch was present, and I think was able to take care of his side of the case in refuting the doctor. To show the gait of a patient with a Syme's operation, I have brought a case here to night, illustrating the fact that walking can be done right nicely. This patient is one operated on by Dr. Murdoch. I have here some limbs made in this city. This is the leg that is furnished for a Syme stump. You will see it is not so cumbersome as a leg in which you have amputation at the point of election. This is a leg such as would be furnished a man who had amputation at the point of election. There is a stump coming down here about five inches, and a man can walk well with such a limb. You can see quite readily that this is a much more heavy and cumbersome apparatus than the limb for the Syme. A man in such a limb as this can walk very nicely, but that is no reason why Syme's amputation should be under-rated.

I exhibit, also, a smaller limb for a child and one for an amputation through the condyles, and this also makes a very nice stump; but my chief reason in showing these limbs was to show the difference in the weight of the Syme and the limb for a leg amputation, which is a matter of no small moment to one who has to travel on an artificial limb.

DR. BUCHANAN: I cannot let the opportunity pass of raising my voice in protest against the position taken by Dr. Mordecai Price in this matter. I was perfectly astounded when I read of his advocacy of amputation through the leg in all cases where the tissues were destroyed back of the ball of the great toe. I believe such teaching is calculated to do the very greatest harm. When we see a stump such as this and the facility with which this man walks on it I cannot see how any one in his senses could sacrifice a limb up to the point of election.

DR. MURDOCH: This is a subject in which I have taken a great deal of interest, and one which I think is of great importance to everyone who practices surgery. It was the opinion of the older surgeons that when a foot was crushed back of the ball of the great toe, that the leg should be cut off at the point of election. That was the rule until James Syme advised the operation at the ankle-joint. Syme's amputation, the operation that you see has been performed on this young man. The first operation was performed on the ankle-joint in 1842, and after he did it, he said it should supersede amputation in the leg for all injuries to which it was applicable, injuries in the foot, and it has superseded amputation in the leg ever since, in the minds of all surgeons, in all countries, I believe, excepting the surgeons of Phila-

delphia, and I believe no voice has ever been raised against Syme's amputation until this opinion has been proclaimed by the surgeons in Philadelphia. Now, in 1887 I made an address before the State Medical Society when the meeting was held in Williamsport. I had the honor to deliver the address on surgery, and in that paper, which is published in the volume of transaction for that year, I went through the subject so fully I feel it would not be worth while for me to go into it again. It is a pretty large subject, but when any one, because he wears an artificial limb himself, claims that Syme's amputation should be abandoned and all operations of the foot back of the ball of the great toe, I contend that he has said something which is absolutely absurd; and when he adds to that, that any man who makes amputation at that point should be prosecuted for malpractice, he says something that is foolish. We all know that the danger to life after amputation increases as we approach the trunk. On the point alone the foot amputation should be favored. I have in this city a colored man upon whom I did a double Chopart amputation. It is not an operation so universally approved as the operation of Syme, but I contended in the paper to which I have referred, that in certain cases where a good flap can be secured, the operation of Chopart, preserving the heel, is preferable to Syme's amputation. This colored man is a cook and walks with nothing on his foot, merely stuffing the forepart of the shoe with some rags. He puts on ordinary shoes and walks about his kitchen the same as I would, and he is able to walk a couple of miles with no other assistance than a cane. In some cases Chopart's operation is not a success, because the foot is drawn up. Syme's amputation is considered a very favorable one in Pittsburgh. I know of patients who walk better than this man and stamp on the heel and jump from a chair striking with the full weight on the end of the stump. Where the hard tissues are preserved, as in Syme's amputation, the face of the stump is so covered with the thick tissues of the heel that it perserves a better stump and is about the only one on which the patient can bear the weight of his body. I do not think anyone would think of amputating immediately above the ankle joint, as it is certainly better to go up to the calf. A professional man, such as Dr. Price, who does not do hard work and merely walks about the city, can carry a heavy limb such as this; but to a working man, its very weight is a great disadvantage, to say nothing of the cost of repair, which is as much in a year, according to Dr. Price, as the repairs of his buggy. I do not believe it is right for surgeons to be governed altogether by opinions of instrument makers. It is for the instrument makers to make artificial limbs, as you see it can be done, for those men who have suffered amputation at the joint. I think every right-minded man who will consider the subject, must conclude that amputation at the ankle joint is preferable to one in the middle of the leg.

DR. DALY: I want to take issue with Dr. Buchanan on one statement, that is, that the statement attributed to Dr. Price is calculated to do harm. I do not believe that any one who would make such a statement would do harm to anybody but himself. I do not believe that members of the profession, the younger members especially, would pay any attention to the opinion of Dr. Price. I believe it has been demonstrated in other places than here it is an excellent amputation. I have seen five or six in various hospitals, but I have yet to see a Syme's amputation that is not very good and useful in its results to the patient.

Dr. R. H. Grube opened the discussion of the paper announced for the evening, entitled "The Pathology of Old Age." (see page 648).

DR. KOENIG: Dr. Grube has said if I understood him correctly, that the condition in old age is one of atrophy. That undoubtedly is correct, but it seems to me there is something behind that which is responsible for the final condition. All vital phenomena in the human, as well as in all other living organisms, may be referred to certain attributes possessed by protoplasm, and instead of atrophy it would seem more definite to refer the condition characteristic of old age to diminished protoplastic irritability. There are apparently in the human life, about three periods of vital activity. During the first period constructive metabolism is very strong, and exists in the normal life for about twenty-five or thirty years, during the period of growth, the period of childhood and adolescence. Then during a

period of perhaps twenty years more or less, there is an equilibrium between the destructive and constructive metabolism. The forces are just about able to hold each other level; the wear is repaired every day by the constructive action. Then gradually after that the tissues are not fully repaired and the protoplasm itself doubtless gradually undergoes a retrograde action and irritability and other attributes decrease, so when we have pneumonia in the aged the protoplasm in the cells of the brain does not respond to the influence that is sent there from the injured lungs in which the pathological condition is very different from that observed in the case of young persons where the reparative processes are active, nor do we have the symptoms that exist during the early part of life.

In the third stage the organism gradually breaks down more and more and the repair is less and less until finally in very old age the condition characteristic of the new born is almost reproduced, with all the functions of the protoplasm arrested, resulting in a physiological death. I remember one case of this kind in an old man up in the nineties who gradually lost his special senses, both blind and deaf, recognizing his friends by the sense of touch alone. Before he died the nutritive process became so impaired that gangrene of his toes set in. In this condition he lingered for a few days till, in my opinion, the unexcreted product of tissue change, so poisoned his enfeebled nerve centres that death became a natural result.

DR. MURDOCH: I think the word degeneration is much more appropriate as expressing the changes in the tissues from old age than the word atrophy. It is a wise saying that "a man is no younger than his blood vessels," and it would be wise to say that a man is no older than his blood vessels and nerves. There are a few expressions used in medicine that are calculated to make us all very weary, such as bowel trouble, lung trouble, etc. I have no doubt these things are very troublesome to patients, but it seems to me that the terms, like many others in use, are very much misapplied. There is another term to which I object and that is heart failure. I do not think anybody can make a success of dying without heart failure. It is altogether too vague and meaningless, but I must confess myself to its occasional use.

DR. DALY: In the female I have noticed a certain indication of approaching age and one that she cannot conceal very well. I refer to the appearance about the mouth and under the jaw. The tissues become flabby, the mouth can no longer assume the air of pouting lips; and these are the points that women who depend so much upon their personal appearance to make them attractive, such as actresses, desire most of all to overcome. I have been consulted more than once by actresses of world-wide fame. They had watched the on-coming appearance of senility, and while the skin covering their body was plump, the submaxillary tissue, which is flabby, hangs down. They would give anything to have that made plump again. Now, with the man, I do not know how you can judge as to his years. I do not think gray hair an indication of old age. Some day I expect to be old myself, and I have been watching for the appearance of old age in other men.

DR. LANGE: I would like to have a few remarks only on some terms which have come in the discussion this evening, which I have always been unable to understand. The words vital-affinity, vital-irritability and vital-susceptibility which were used this evening and frequently appear in books are used to designate what occurs before degeneration and atrophy. Now, it seems to me, gentlemen, that these are terms to which we, as physicians, and even as pathologists, ought to object. We do not know what vitality is. Vitality is a mystery and must remain so to us. Vital-susceptibility and vital-irritability and vital-affinity! I do not believe that there is one gentleman here who understands what those terms mean. I am sure I do not, and I have tried hard to find out. As physicians, these terms should be ignored by us. We can go no further back than to say that atrophy and degeneration are for the most part characteristic diseases of old age, and, therefore, the lesions upon which we can put our fingers and prove, but we can prove nothing beyond these lesions. Now, it is a matter of course that when we have degeneration of a tissue that there is something back of this, but in some cases we cannot say, and as I believe that nobody knows what is back of this lesion which is demonstrated, I think it is as far as we can be expected to go to name the lesion.

In regard to pneumonia, I agree with what has been said, that pneumonia in old age travels very insidiously. However, as the term pneumonia without qualification always gets into the discussion, there remains the unfortunate fact that pneumonia appears in so many forms, from a bronchitis to a passive pneumonia and all the intermediate stages and degrees, that when pneumonia is mentioned unqualified it is hardly possible to know of what one is speaking. Post-mortem examinations even often fail to decide whether it was bronchitis or pneumonia, so intimately connected are these two.

DR. KOENIG: I want to say in response to the last speaker that protoplasmic irritability is no myth but an established fact. It is our duty to go beyond superficial symptoms in our investigations of subjects of this character, not only is this duty imperative on pathologists but likewise on the general practitioner of medicine.

DR. DALY: Degeneration is not necessarily followed by atrophy as witness the case of senile enlargement of the prostate gland. Other cases might be cited.

DR. GRUBE: I accept Dr. Daly's suggestion that degeneration would have been the better word to use where I used the word atrophy. At the same time I agree with Dr. Lange's statement that atrophy usually goes with degeneration. As for Dr. Murdoch's remarks on heart failure, I cannot agree with him that it is a fad. We use that term now as we formerly used the term paralytic stroke, indicating now the result of cerebral hæmorrhage. Heart failure where the person drops dead, nine cases out of ten, is simply a heart failure. The heart is dilated and from some start or strain distends the right ventricle and the heart stops. I do not know of any better term and I think nine times out of ten it is the cause of sudden deaths.

GASTRO-ENTEROSTOMY.

DR. WERDER: This specimen is from a case that was operated on by me last November and we obtained the organs after her death six and one-half months later. Nothing would remain in the stomach for three months before operation. To remedy this gastro-enterostomy was performed and all the food passed through this artificial opening connecting the stomach with the small intestine. The six and one-half months she lived after the operation, she lived in perfect comfort and suffered no pain whatever. She lost about one pint of blood shortly before her death, and I think that was the immediate cause of the fatal issue. Three days before she died she walked about one mile. She suffered intense pain before operation, and she was in bed three months before she was operated on.

DR. BUCHANAN: I had the pleasure of assisting Dr. Werder in this operation and I must say that the patient was in such a low condition that it was very questionable, when the operation was begun, whether it could be completed. After the condition within was discovered it was questionable whether it was justifiable to enter on the gastro-enterostomy, but the operation was completed in a very short time. I saw her afterwards and she was apparently in a perfectly normal condition. I think this is the first operation of the kind that has ever been performed in this part of the state.

EXPLORATORY LAPAROTOMY.

I would mention in this connection a case that I operated on shortly after this. An old man had a very large cancer of the stomach but had no vomiting. The diagnosis of the case was that of omental growth, and he was operated on because he was losing flesh and because of the rapid increase of the growth of the tumor. When the abdomen was opened the condition was discovered as being that of a large cancerous growth in the stomach, and the patient was in such a low condition that, although I was prepared to perform gastro-enterostomy, I did not consider it advisable to do so, because he had no symptoms of obstruction and because I did not think he would be taken off the table alive. This man simply had an exploratory incision, and recovered from the operation but died on the thirteenth day of obstruction due to the fixation of the growth by adhesion to the incision, which prevented the free movement of the stomach. This occurred after he began to take solid food. I do not think that I have ever heard of this accident happening after an exploratory operation in cancer of the stomach.

THE MEDICO-CHIRURGICAL SOCIETY, OF LOUISVILLE.

Stated Meeting, September 16th, 1892.

THE PRESIDENT, Dr. F. C. Simpson, in the Chair.

Dr. S. G. Dabney read a paper on "Myxoma of the Nose and Fibro-Myxoma of the Naso-Pharynx." (See page 645).

DISCUSSION.

DR. WM. CHEATHAM: I believe the Doctor forgot to mention the effect of nasal polyps upon the antral and other sinuses; their presence may be cause or effect, in affections of the sinuses; by stopping communication between the nasal cavity and these sinuses, thus preventing the interchange of gases, an inflamation of the sinuses may result; or again they may be the result of sinus inflammation and by their presence, may prevent a cure. The Doctor's paper is a good resumè of the subject to date.

DR. J. M. RAY: Dr. Dabney has given us a very good resumè of polyps and their formation. It has been my experience to see polyps quite frequently in children. I remember that McKenzie especially calls attention to the fact that these growths are not apt to occur in children. In the last two or three years I have had several cases under twelve years of age. The last experience I had with growth of this character was in a child under fourteen.

As to the form of growths that project into the naso-pharynx; I believe that primarily they are the same thing as an ordinary polyp, growing backward into the naso-pharynx, developing rapidly and taking on a fibrous condition. I have removed several of them. I presented one to this society some time since, which was a very large cyst quite as large as a guinea egg; it filled up the entire post-nasal space. I have often seen these growths project out into the throat having undergone fibrous degeneration, being hard and dry. I believe they are simply misdirected nasal polyps developing to a greater size, and in that way becoming the so-called myxo-fibroma of the naso-pharynx.

DR. CHILTON: (of Dallas, Texas) I have enjoyed Dr. Dabney's paper very much. The remarks in regard to bone degeneration in some cases of myxomata, cause me to recall a case I had several years ago: When I saw the patient he had not been breathing through his nose for twelve years. I examined him time and again, and there was absolutely no bone trouble whatever. I removed, I think, eight or ten polyps, and the man recovered under treatment very nicely and that has been six or eight years ago. It has been my experience to find no bone trouble in these cases. I have been paying especial attention to cases of this character for some time, and have never seen any bone degeneration.

As to the benefits of after treatment, I have found that in nearly all cases there is a recurrence of the polyp without after treatment. In fact, you always find some pathological condition which is unquestionably the cause of these polyps, and the liability to recurrence is very great.

DR. W. L. RODMAN: I would like to ask Dr. Dabney how common sarcomatous polyp is in the post-nasal space; that is how often he has seen them.

DR. S. G. DABNEY: I only remember having seen one case of sarcoma in the nasal passages. But it is a well known fact that the tendency of fibroma is to undergo degeneration, becoming sarcomatous in character.

DR. J. M. RAY: I want to ask what proportion of cases of multiple nasal polyp are permanently cured by operation, or any after treatment. In my experience where the polypi are multiple, they will recur in spite of any treatment, before or after removal.

DR. S. G. DABNEY: Referring to Dr. Cheatham's remarks: There is no question but the condition he mentions does sometimes occur, but I have never encountered it in my experience. I believe Bosworth reports having seen several cases of that kind.

Notwithstanding the fact that McKenzie says nasal polyps are very rare in children, my experience has been very much like that of Dr. Ray in this respect. I have seen three or four cases in children under twelve or fourteen years of age.

In regard to the point made by Dr. Chilton about bone disease: My observation is that the bone is very often diseased in cases of multiple and long-standing nasal polyp, but not otherwise. I do not think, however, that the occasion for removing the bone is because of necrosis, but the removal of a small portion of bone is

often necessary to reach the base of the polyp.

It is hard to say just what proportion of the cases are permanently cured. Dr. Ray's question is a very pertinent one, and is very hard to answer, as patients are often lost sight of by the attending surgeon.

(Drs. Ray and Cheatham state never having seen a case of multiple polyp permanently cured).

DR. T. C. EVANS: In regard to the recurrence of nasal polyps: There are some cases that I have had under observation ever since I have been doing special work (four or five years) in which they have not returned. The cases I have under observation, however, were single polyps. I do not believe these are as apt to recur as in cases where there are several. I remember one case particularly which I operated upon three years ago, where both nasal cavities were filled with polyps hanging down in the post-nasal space; they were all removed and up to six months ago there had been no recurrence.

PATHOLOGICAL SPECIMENS

DR. A. M. CARTLEDGE: No. 1. This specimen is only interesting from the rapidity of it growth. It was removed from a young man twenty-four years of age, two weeks ago last Monday. The history of the case is about as follows: Two years ago he commenced having pain in the left leg, deep seated pain but no swelling. This continued until several months ago, then there was some swelling. His physician who treated him in the country consulted a surgeon at that time, and there seemed to be nothing more than just a simple enlargement of the vessels with slight swelling. An incision was made down through the periosteum, and the trouble at that time was thought to have been, I believe, a diseased condition of the bone, together with necrosis and periostitis. After this incision the tumor took on a very rapid growth, and within three weeks attained the size which you see here. It is decidedly malignant requiring no microscopical section to prove that; one has been made, however, proving that it is sarcoma. I made a careful examination and advised immediate amputation at the thigh, which was done as stated two weeks ago. The patient left the infirmary in fourteen days from the time of amputation; there never was any suppuration, and he went home yesterday.

No. 2.—The next two specimens I want to exhibit are especially instructive, showing two forms of ovarian disease. One being a very large hydrosalpinx removed from one side, and a pyosalpinx removed from the other. There was acute ovaritis on the right side, with a small abscess on the left. Tube on the right side was fully as large as a sausage; adhesions were very dense; operation done about eight weeks ago. I report it not so much for the specimens as the subsequent course of the case. There was considerable hæmorrhage, and, owing to this and on account of the large amount of peritoneal surface exposed, I treated it as I have treated several cases very successfully, by packing in a large quantity of gauze in strips, not only for the purpose of drainage, but for the purpose of hæmostasis. In six hours from the time of operation the patient's temperature was 102½° F.; in twelve hours temperature had gone up to 103° F.; pulse very rapid; pain severe. She died in eighteen hours after the operation with this high temperature. On holding a post-mortem of the case it was found that the alarming symptoms were due to intestinal obstruction, although there had been very little tendency to vomiting, but there was rapid sinking and a little loop of the bowel had become incarcerated in the gauze that was packed in. I do not think the value of gauze packing in cases of this kind, where you have extensive adhesions and a great deal of blood, should be underestimated; I am satisfied it has saved cases for me in a good many instances; I have packed in great quantities of it in bad cases without causing any trouble. I shall continue to rely upon it in these cases, yet, in this case, it was the cause of death.

No. 3.—The patient from whom this specimen was removed was referred to me last Saturday by Dr. Scott; case referred to him by a physician in a distant city. Diagnosis had been made of pyosalpinx of the left side, and patient was sent here for operation. The woman to look at her seemed to be in fair health, color and expression good, she was a small woman and not much emaciated. On examination by the bi-manual method I determined that the woman was suffering from pyosalpinx, but was not inclined to think the disease was very extensive. The his-

tory was that she had a child about five years ago, and that three years ago she had a miscarriage with retained placenta; her physician, after the placenta had been retained for several days, performed an operation. After this she developed high fever and was in bed three or four months. Since that time she has only been able to be up a little while at a time without becoming exhausted; has been in bed the greater portion of the time. Diagnosis of pyosalpinx was then made by her physician, and she was sent here for operation. When she arrived temperature was about normal. Last Saturday I did the operation, and found the most extensive pyosalpinx that I have ever encountered; there was a great deal of pus; the adhesions were very strong and dense. I never saw anything to equal it. The left ovary and tube had to be separated from behind the uterus, and a great deal of pus escaped into the pelvic cavity. The right ovary and tube were very much enlarged and enlongated; there was also an abscess on that side containing about a half pint of pus. The cavity was thoroughly irrigated, glass drainage tube being used. The discharge from drainage tube was clear serum by Monday and was removed Monday afternoon. The patient was quite weak, pulse going up to 130. She has done uninterruptedly well, however, since the operation, has no pain. Sutures were removed to-day, abdomen perfectly flat, and there has been no further rise in temperature.

No. 4.—The next case I think is of especial interest. Patient a woman thirty-five years of age, and gives about the following history: Five or six years ago she had an attack of severe pain coming on suddenly about the stomach—referable particularly to the stomach and somewhat to the right side. Her husband who is a physician thought it an attack of bilious colic. He called a consultant, who differed with him, however. He searched the evacuations for two or three days after this, but was not rewarded by finding any evidences of biliary calculi. The woman grew better, the pain entirely passing off. From this time up to the present she has been having these attacks of intense pain, lasting anywhere from three or four hours to a day or a day and a half, and during these intervals several times her husband examined the stools but was never able to find any gall stones. The patient had been examined by several physicians, and diagnoses made of gastric colic, gastritis, etc.; there never was any jaundice whatever. One week ago last Wednesday she had a very severe attack, and her husband found it necessary to give chloroform to control the pain, also large doses of opium; this continued all day Thursday and Friday. Dr. Scott saw the case in consultation on Saturday afternoon, and upon examination discovered an enlargement in the region of the gall bladder about the size of a fist, and thought the trouble was in the gall bladder. I saw the case in consultation with him on Saturday night, made a very careful examination, found abdomen very tender, pain still intense, patient taking dangerous doses of morphine. I perfectly agreed with Dr. Scott with reference to the location of the trouble, and we decided to operate Monday. On Monday in the forenoon we did the operation of cholecystotomy, making an incision two and one-half inches in length over the liver, going through the peritoneum; on opening the peritoneum it was found that the gall bladder was covered throughout its anterior surface with a thin margin of liver; this was raised up—while it was movable to a certain extent, there were some adhesions on the lower surface. The gall bladder, on account of its great distension, had to be aspirated and we drew off about two ounces of greenish looking mucus, which seemed to be mixed with pus. I then made an incision into the gall bladder and searched for stones. Seven large stones were removed, one being embedded deep in the cystic duct, which was removed with some difficulty. From the time of the operation the woman did well, had no further pain excepting for an hour or two, temperature never rose above 99° F. She is now up and the fistula gives evidence of rapid closing. On the second day after the operation I gave the patient an enema, and a mucus cast fully thirty inches in length and as large as your finger came away with the evacuation.

Dr. W. L. Rodman: The first specimen shown by Dr. Cartledge I take it is undoubtedly sarcoma, probably of the round cell variety. I do not think that anything has particularly been added to the history of sarcoma of the long bones, since the paper written by Dr. S. W. Gross, in 1880;

he made it clear at that time, that sarcoma of the long bones was most liable to occur in persons from twenty-four to twenty-eight years of age. They run a very rapid course as a general thing. I think Dr. Cartledge gave this man the only chance of his life: that is, going above the growth and removing by amputation.

DR. CORNELIUS SKINNER: In regard to the second and third cases reported by Dr. Cartledge and his treatment for the hæmorrhage after removal of the specimens exhibited, after breaking up the adhesions, etc., I have employed the gauze-packing in a number of cases and have never had any trouble such as he mentions, neither have I ever seen anything of the kind reported before. I would like to ask if he put this gauze loosely in the cavity, or packed it in solidly. The bowel will sometimes slip down in packing this gauze, and you can see how the gauze could be lapped over the bowel without being observed, and that more gauze put down over the top of that would constrict the bowel, the bowel slipping in between the packing. This packing should be done with a great deal of care, and our attention having been called to the accident, will, of course, make us still more careful in these cases.

This also opens another question—the treatment for abortion. One of the cases I believe had aborted, and in which the operator had attempted to remove the placenta after a certain delay. I think the result proves that these cases should be let alone; that no instruments should be used, and that the uterus should be left to expel the placenta in the natural way.

In the treatment of ovaritis and salpingitis—the cases reported leave us about as much in the dark as before. The ques- that is attracting attention just now is when should we operate, whether in the primary attack, or wait until the second or third attack, or until pus forms. About a year ago I had a lady under treatment for an attack of salpingitis; thought at the time there was pyosalpinx and so expressed myself, recommending an operation for removal of the tube, (which however, was not performed,) and saying that the woman would never give birth to any more children—she was already mother of two. Dr. Huitt saw the case with me and agreed that there was pus in the tube as it felt quite large; also agreed with me as to the prognosis concerning child bearing. Last Saturday, after all of this prognosis, I delivered this woman of a healthy boy baby. However she carried this child with a great deal of discomfort all through the nine months. She did not have one day of comfort in all the time, was not able to go out of the house. There was nothing of this kind in the two previous pregnancies. I never could find out just what it was that excited this inflammation.

Translations.*

BY M. B. WERNER, M. D.

M. G. Houzel (*Le Bull. Med.* Sept. 21, 1892) contributes the following: In cases where uterine cancer is confined to that organ alone vaginal hysterectomy is indicated; if however the disease has invaded the neighboring organs to such an extent as to make total extirpation impossible, palliative surgical treatment should be tried. In order to control the hæmorrhage, pain, and sepsis from auto-infection—he uses for his operations a bistoury, curette, and scissors, and discards all caustics, except the occasional use of the red hot iron. He removes all degenerated tissue as far as possible in and around the uterus, at the risk of entering the peritoneum, bladder, or rectum, always in that case uniting as far as possible the edges of those cavities with sutures, and claims primary union. If however this is impossible he packs with antiseptics—preferably lactic acid solution.

His observations have proved that if cancer is left to nature its course is usually as follows: From twenty-five to thirty-five years, death between eight and fifteen months; thirty-five to forty-five years, death between ten and twenty-four months; fifty to sixty years and later, death between twenty-five and thirty-six months.

Those cases treated palliatively by Houzel resulted as follows.

Twenty-five to thirty-five years operated after eight months' duration, survived thirteen months giving a total of twenty-one months.

Thirty-five to forty-five years, operation

* Translated for MEDICAL AND SURGICAL REPORTER.

after ten months' duration, survived twenty months giving a total of thirty months.

Fifty to sixty years, operation after twenty-two months' duration, survived twenty-two months giving a total of forty-four months.

These results led him to conclude that when cancer had developed so far that total vaginal extirpation ceases to be justifiable, the life of the patient can be prolonged and made more comfortable by the palliative operative treatment.

Salipyrin is credited with producing good results in profuse and painful menstruation, exception being made in those cases of grave inflammatory changes. It is usually given at the beginning of the period, and its results are more satisfactory than any of the Secale preparations regarding the loss of blood and duration of the period.

℞ Salipyrini..... .....1.
D. dos. No. 12.
D. in capsule amylæ.
M. S. D. One powder thrice daily.
—Dr. Zurhelle Burtscheid Aachen.

—*Deutsch Med. Zeit.*, No. 69, 1892.

Intestinal occlusion from a collection of ascarides, Dr. Paul Simon-Nancy, *Rev. Med. de l' Est.*, 1892.—Child æt. 11, lost consciousness owing to pain located below the umbilicus; there was vomiting and constipation; three days later temp. 38° A. M. and 39° P. M.; face pale, tongue slightly coated, abdomen somewhat distended; a localized swelling can be felt immediately below the umbilicus, which is painful upon pressure; on the fourth day an enema was followed by a slight movement, accompanied by bilious vomiting, which lasted during the night. Sixth day, abdomen more tender to touch, bilious vomiting still continues, have been several movements of pure blood, pulse 128, temp. 38°. Seventh day, child retains nothing; is constantly groaning; facies hyppocratica. During the night, several intestinal hæmorrhages; rectal examination reveals nothing abnormal.

An artificial anus was formed by Heidenreich, a large quantity of liquid fecal matter was discharged, followed by an immediate collapse of the distended abdomen; the day following seven living ascarides were discharged in a mass, and a little later an eighth. The second day after the operation there were five movements through the physiological opening. Santonin was given resulting in a discharge of three more worms, it was then remembered by the attendants that previous to the child's illness one worm had been discharged by the rectum and several had been seen in the vomited matter the day previous to the operation. The artificial anus was closed and healed promptly. Simon cites five other cases extracted from literature. Among these six cases, four have occurred among children. Simon was the first to operate and the only one who saved the case. Clinically the symptoms are those of invagination.—*Deutsch. Med. Zeit.* No. 76, 1892.

Dr. Langermann (*Deutsch Med. Zeit.* No. 75, 1892) reports a case of ligation and resection of the femoral vein, beneath Poupart's ligament, just above its conjunction with its longer branches. Recovery. Operator was Dr. Biedert—Patient, æt. 55, had been operated five months previously for carcinoma of the labia majora, at the same time an enlarged gland had been removed from the left inguinal region. Two glands enlarged to the size of a hen's egg appearing again in this place necessitating the second operation, one of these was deeply adherent, was intimately connected with the saphenous and femoral veins, making it necessary to resect the femoral vein 2½ cm. The wound was drained and closed, the limb elevated. Some swelling and depression of surface temperature existed the first evening which disappeared permanently the next day. The patient was discharged cured one month after the operation. She died later from a metastasis in the lungs. microscopic examination of the resected portion of the vein showed carcinomatous degeneration in its walls, and contraction of its lumen. The satisfactory recovery in spite of the artery remaining untouched Langemann explains by the fact that previous pressure on the vein by the growth, favored collateral circulation, thus avoiding continuous œdema and possible gangrene.

M. Doyen—(*Le. Bull. Med.*, Sept. 21, 1892) presents the results of 305 operations on the uterus and its adnexa. Of these there were 175 laparotomies, 123 vaginal operations, eight laparotomies, intraperitoneal:—Fifty-six cases tumors of the ovary, 1 death (75 years, broncho-

pneumonia); 13 cancerous degeneration of peritoneum with ascites, 5 deaths; 60 disease of the adnexa, 6 deaths—2 due to septic catgut; 30 extraperitoneal hysterectomies, 3 deaths; 1 hysterectomy, reduction of the pedicle, 1 death; 10 hysterectomies, total extirpation, abdominal, 1 death; 5 suppurating fibroids, uncompleted, 5 deaths; 10 vaginal hysterectomies for cancer, 4 uncompleted, 6 deaths; 22 operations for intrauterine growths (polypi)—incision and removal by piecemeal, 1 death; 8 finally requiring section.

The present status of surgery of the gall-bladder as viewed by Prof. Czerny. (*Deutsch. Med. Wochen.*, 1891): I. Operation for gall stones is indicated as soon as there are repeated or continuous attacks of colic. II. Empyema of the gall-bladder, if repeated troublesome symptoms present themselves, calls for operation. III. The typical operation for stone in the bladder consists of an incision, evacuation of the cyst and suture. The abdominal wound should be drained for a short time. IV. Should the ductus cysticus be impermeable, the gall-bladder inflamed, its contents markedly changed, a temporary biliary fistula should be established. V. Extirpation of the gall-bladder is only called for in grave forms of inflammation or carcinomatous degeneration. VI. In closure of the ductus choledochus an operation is absolutely indicated, provided the strength of the patient permits it, should it be impossible to remove the obstruction (stone or abnormal bend in canal) and the establishment of a fistula between the gall-bladder and duodenum is indicated. VII. The triangular (hackenförmiger) incision is in the linea alba, the horizontal immediately beneath the umbilicus, direction toward the right. VIII. The mortality of these operations is lower than that for stone in the bladder.

Careless obstetrics ending in death, (*Zeitschr. f. Medizinal beamte*). Dr. Rump of Osnabruck was called to a case of transverse presentation; he performed version and apparently extracted with ease a partially asphyxiated child. The midwife at once made efforts to restore the child in an adjoining room. On returning she found the doctor apparently engaged in removing the placenta. The mass he drew out seemed to her more like a piece of intestines, but which the doctor insisted to be a portion of the membranes, and ordered the midwife to cut them. The midwife kept the severed portions and found after careful cleansing and inspection that it was a portion of the intestines. The patient began to suffer pains and died soon after. The doctor had left her after writing a prescription. A subsequent post-mortem examination revealed a vaginal tear of 10 cm. through which 17 cm. of intestine protruded. The ascending and transverse portions of the colon were missing the edges showing a clean cut; the piece kept by the midwife supplied the missing portion.

Under legal examination the physician declared that failing in his efforts to replace the prolapsed intestines, which had become cold, he feared gangrene and thought it best to cut the prolapsed portion, and unite the edges with sutures, the condition of the patient, however, became alarming, he concluded to let matters remain as they were. In his opinion the patient died of shock induced by the pains and excitement of labor. The physician was sentenced to six months' imprisonment for careless practice resulting in death.—*Deutsch. Med. Zeit.*, No. 74, 1892.

Dr. Messner (*Archiv. für Patholog., Anat. und Physiol.*, 1892) gives a most interesting case of apparent hermaphroditism. Patient is thirty-one years old and has been married as a husband for seven years. The general form of the body is that of a female but the visible genitalia are those of a male. He shows sexual passions toward the female sex, but not toward the male sex. His first copulation was with a girl, when he was nineteen years old. As husband, he now performs his sexual functions and his wife has given birth to one child. He has emisio seminis, but Dr. Messner was unable at the time of a microscopical examination, to discover any spermatozoa. For the past ten years he has also shown regular menstrual periods every twenty-eight days. On one side he has a well developed testicle; on the other side his sexual gland is not so large.

It is to be hoped that the surgeons will keep track of this monstrosity, and when he dies, will furnish us with the exact anatomical details which could not be satisfactorily given from examination during life.

Abstracts.

THE CÆSARIAN SECTION IN PLACENTA PRÆVIA.

Dr. W. H. Ford (*American Gynecological Journal*) says: The dangers of placenta prævia, as well to the mother as to the child, are due to thedevelopment of the placenta upon the lower segment, *and* to the *canalization* of this segment during labor.

While the first of these conditions cannot be avoided, the second should not be permitted in placenta prævia totalis, or partialis. Delivery should be by Cæsarian section.

In placenta prævia marginalis, if the circumstances were favorable, the os easily dilatable, the condition of the mother and child good, the head presenting or capable of being readily brought to engage, and the hæmorrhage arrested or moderate, it would be well to follow the method of intra-uterine and vaginal tamponade, and deliver by forceps if the child should be in danger. But if the os were rigid, the hæmorrhage profuse, the presentation lateral, the cord prolapsed and not reducible, or the *fœtus evidently suffering*, I would have immediate recourse to the Cæsarean section.

The Cæsarean section should be performed as soon as the diagnosis is established and the condition of the mother permits, to the exclusion of all other methods, as an elective and primary operation, in all cases of *placenta-previa-totalis* and *partialis*, and in placenta prævia-*marginalis* as soon as the conditions warranting it have been satisfactorily determined.

In the two graver forms of placenta-prævia the Cæsarian section should be practiced as a prophylactic measure, in place of any attempt to deliver by the natural passages, after the first hæmorrhage.

In cases where hæmorrhage is late or sets in only as labor begins, and where, consequently, the placenta is most probably attached laterally, it is advisable, until this entire subject has been practically studied, to deliver per vaginam, as a rule. If, therefore, the cervix be easily dilatable, and the hæmorrhage moderate, we may proceed as suggested in the more hopeful cases of marginal implantation. But *even here*, an undilated os associated with severe hæmorrhages would constitute a very serious condition. If the rigidity were due to fibrosis, it should be abated by multiple incisions; if to carcinoma, the radial Cæsarian section would be indicated. If the cord were prolapsed and after reposition still descended, the os being partly dilated and not dilatable, dangerous hæmorrhage continuing meanwhile, the Cæsarian section would be unquestionably indicated for the safety of both mother and child.

TREATMENT OF PNEUMONIA.

Dr. Jos. D. Craig, (*Albany Medical Annals*, for October, '92) in a discussion on the treatment of pneumonia, concludes that while it is a self-limited disease, it is unsound practice to permit a case to run its allotted course, without such medical means as will give relief. He sums up the indications for treatment as:

1. Prophylactic.
2. Hygienic.
3. Systemic, as regards,

(*a*) The period of invasion with chill and rise of temperature, and the danger from heart and lungs.

(*b*) The fever and its consequences.

(*c*) The cerebral symptoms.

(*d*) The period of crisis.

(*e*) The dyspnœa.

(*f*) The cough and consolidated portion of lung.

(*g*) The exhaustion and weakness.

Dr. J. H. Mitchell, in same discussion says: That each case requires treatment according to its own individuality. He recommends, bleeding, antimony opium, and alcohol. It is no one remedy, but the proper combinations that give best results.

Dr. Wm. Hunt recommends a dressing of a thin layer of cotton, applied over the affected side, secured with collodion, then add layer by layer, until a good padding is secured Thus, the fatigue and discomfort, of frequent poulticing is avoided.

Dr. A. J. Van Vranken in same discussion is a strong advocate of the use of large quantities of alcohol, even going so far as to say that if he were to be confined entirely to the use of any single drug, he would invariably choose alcohol. The amount to be given, in every case depends on its severity. While it is of use in the

first stage, its greatest virtue exists in the second stages. Its use must be pushed until the patient is convalescent.

Dr. Lorenzo Hale says that when a diagnosis is made, we should bear in mind that we are dealing with an infectious constitutional disease, which runs a typical course. Death, in this disease, is always due to insufficiency of the heart which demands first attention. We should employ early and cautious treatment, to prevent collapse; for this condition he recommends venesection; most alarming symptoms, will quickly yield to general bleeding, then clinch the advantage gained by the use of stimulants, which he claims, are always in demand, when the first sound of the heart is feeble, the pulse slow and compressible and the respirations becoming more rapid. If for any reason, alcohol cannot be used, such stimulants as ammonia, camphor, opium in small doses, strychnine and nitroglycerine, can be used.

He regards digitalis, as the great cardiac stimulant and restorative but in extreme danger, we should not wait for its action, but resort to quicker remedies, as the nitrites, ammonia, hypodermics of ether, brandy or strychnia.

For the fever, he believes in letting it alone, unless it becomes excessively high, when he recommends small doses of acetanalid, or antipyrine. For nervous and cerebral symptoms, should they occur. if reduction of temperature does not relieve them, he recommends the cautious use of narcotics. Meningeal complications should always be regarded as grave.

EXTIRPATION OF THE SUPERIOR MAXILLA AND THE CHEEK.

Dr. Frank Hartley, in the New York *Medical Journal*, of October 8, reports a case, in which he removed the superior maxilla. The patient, aged sixty-six years, first sought relief from what appeared to be a wart upon his cheek, below the infra-orbital margin, which gradually increased in size, until it finally involved the greater part of the cheek.

A complete extirpation of the growth was attempted. It required the complete removal of the superior maxilla and cheek. Skin-grafts were taken from the thigh and used to cover the surface. The recovery from operation and the healing and union of the grafts were uneventful. The patient remained in the hospital two and a half months, was discharged with instructions to return in one year, for plastic operation, if no return of disease occurred. On May 15, the operation for the purpose of closing the large cavity, was done.

A large flap of skin, six by eight inches, was taken from the neck and turned upon itself, so as to have the skin take the place of the mucous-membrane, in the oral cavity. The suturing of this flap was accomplished by uniting the edge of the skin, which now took the place of the mucous membrane of the oral cavity, to the inner edge of the furrow surrounding the original cavity, and made by the removal of a strip three-eighths of an inch wide. Catgut sutures were used and skin grafting was made use of to cover the surface expressed by the flap. The solution used was six parts of chloride of sodium, in one-thousand parts of boiled water. The union of the flap to the surrounding tissue as well as the skin grafting, was a complete success.

The case is of interest, on account of the extensive removal of tissue, the successful skin-grafting over bone, and the formation of the whole cheek.

PUERPEAL SEPTIC RINFECTION.

Dr. W. P. Manton, in an address delivered at the twenty-third annual meeting, of the Detroit Academy of Medicine, September 13, 1892, said: Puerperal septic infection, is rarely met with to-day, save as manifested in the occasional case by the temporary rise of temperature within the first few days post-partum.

The rapidly fatal poisoning, due to the sudden entrance of an overwhelming quantity of toxic material into the general circulation, has well nigh passed into history and the young accoucheur, who can add such a case to his experience sees that which, in the not distant future will be considered one of the most infrequent of puerperal complications.

The employment of antiseptics and increasing knowledge of the pathology of septic processes, have almost driven from the lying-in room a host of secondary effects of infection, which formerly were prevalent. Phlegmasia-abba-dolens, (milk-leg) is now a comparatively rare occurrence; septic ulcerative endocarditis is seldom if

ever seen now by the general practitioner, and metastatic complications, in distant organs have become of less interest because of their uncommonness.

The practice of obstetrics, has been revolutionized in less than half a century. Its advance from year to year has kept pace with its sister art and science, surgery. We, who to-day stand on the verge of the millenium of midwifery, can barely appreciate that dark and terrible era, through which our forefathers fought toward the light of knowledge and success.

Medical history offers no more interesting, or instructive page than that on which is recorded the evolution of the obstetric art.

Selected Formulæ.

CONSTIPATION.

℞ Aloin.....1-5 gr.
Ext. belladonnæ.....⅙ gr.
Ext. nux vomica.....¼ gr.
Papoid.....ss gr.
M.—Ft. pill No. 1. (Use no water to form mass.)
(Keep in air-tight vials.)
Dose, one pill once or twice a day.

CONSTIPATION.

℞ Ext. cascaræ sagradæ fl.....
Glycerinæ.....āā..f ʒ i M xx.
Aquæ, qs. ad.....f ʒ ij.
M. et Sig.—ʒ i. at bedtime to a young infant.

When the stools are hard and clay-colored, the following has been recommended by Ringer:

℞ Resinæ podophylli.....gr. i.
Alcoholis.....f ʒ i.
M. et Sig.—1 or 2 drops on sugar t. i. d. to infant one or two months old.

TRAUMATIC TETANUS.

Dr. Mayer, of Amberg, reports a cure from the use of a mixture containing in each dose:

℞ Muriate of morphine.....1-65 gr.
Chloral hydrate.....1½ grs.
Bromide of sodium.....2¼ grs.
Sig.—To be taken three to six times a day.

Fifteen grains of morphine were taken in all.

RHEUMATIC BRONCHITIS.

℞ Sodii salicylatis.....ʒ vi.
Glycerinæ.....ʒ iv.
Vini colch, rad.....ʒ vi.
Syr. scillæ comp.....ʒ iss.
Tr. opii camph.....ʒ ij. M.
Sig.—A teaspoonful every three or four hours, in a little water.

—*Dr. N. S. Davis.*

EMBALMING FLUID.

The following is quoted by a writer in the *Phar. Era:*

℞ Potassium chlorate.....
Chlorinated lime.....
Arsenious acid.....āā..ʒiv.
Corrosive sublimate.....ʒii.
Aluminum, sulphate.....ʒvi.
Water.....2 quarts.

HYPERTROPHY OF THE TONSILS.

Syrup of the iodide in combination with cod-liver oil; the tonsils painted once daily with one of the following:

℞ Tinct. ferri. chlor.....f ʒ i.
Glycerinæ.....f ʒ ss.
M. et Sig.—Apply.

℞ Ammon. iodidi.....gr. x.-ʒ ss.
Glycerinæ.....f ʒ i.
M. et Sig.—Apply every night with brush.

—*Waring.*

℞ Liq. ferri perchlorid.....f ʒ ss-i.
Glycerinæ.....f ʒ i.
M. et Sig.—Paint over tonsils once or twice daily.

—*Mackenzie.*

℞ Liq iodini comp.....f ʒ ij.
Glycerinæ, qs. ad.....f ʒ i.
M. et Sig.—Paint once daily.

—*Starr.*

In marked hypertrophy the solid nitrate of silver point may be passed into the follicles of each gland and then applied over the whole mucous surface every other day. Should this fail, excision must be resorted to.—*Powell, Essent. Dis. Children.*

TOOTHACHE.

The following formulæ are given in an Italian medical journal:

℞ Sozoiodolate of soda.....1 part.
Sozoiodolate of potash.....2 parts.
Glycerine to form a paste.
Put one or two drops into the cavity.

℞ Chloroform.....14 parts.
Mastic.....8 "
Peruvian balsam.....5 "
Dissolve the resins in the chloroform. Two or three drops into the carious cavity.

℞ Extract of opium. } āā.....1 part.
Camphor.....
Peruvian balsam.. } āā.....2 parts.
Mastic.....
Chloroform.....20 "

℞ Chloroform.... } āā.....eq. parts.
Laudanum..... }
Creosote..... } āā.....3 "
Tincture of benzoin.. }

℞ Chloral hydrate. } āā.....5 parts.
Camphor..... }
Cocaine.....1 "

℞ Creosote..... }
Essence of peppermint.. } āā.....2 drops.
Camphorated oil..... }
Essence of violets.....5 "
Cocaine.....mgm 15 (gr. ¼).
Chloroform.....q. s.

THE

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THE MEDICAL AND SURGICAL REPORTER.

SATURDAY, OCTOBER 22D, 1892.

THE OPERATION OF SYMPHYSIOTOMY.

The sudden advocacy of symphysiotomy in this country indicates the progressive tendency in medicine. Within a short time the operation has been performed three times by different operators, once in Brooklyn and twice in this city, thus gaining recognition after a period of neglect covering the history of obstetrics in this country. In looking into the question as to the occurrence of suitable cases co-incidentally in the hands of these different operators we are lend to wonder at the causes which have influenced the profession to adopt this new departure. For this we must look first to the results obtained in the present year by European operators, and, secondly to the influence upon the progress of medicine in this country of the German writers. The resumption of symphysiotomy as a modern operation is to be credited to the Italian school, but its promotion in this country was delayed until we were given the results of the recent German workers in this field, namely, Leopold and Freund. The former of these operators has produced a deep impression upon his followers by his commendation of this procedure, on account of the stand which he has until recently taken in favor of Cæsarean section. His attitude will, therefore, strengthen the position of those who believe that symphysiotomy can replace Cæsarean section.

If after careful consideration symphysiotomy is accepted in this country it will probably have the effect of limiting the number of sections, for two reasons; in the first place because of its comparative simplicity and second on account of its claim upon the non-professional world for humanitarian reasons. The cases in which Cæsarean section is indicated will always remain distinct from those in which symphysiotomy is called for.

Symphysiotomy may prove a restriction to the growing leniency toward the Cæsarean operation for "relative indications," perhaps, also, to the frequency of craniotomy. There may be a danger of drifting into a too frequent resortto this simple operation to save the child, in the belief that we are entailing but a slight risk to the mother. There is still a greater danger of this new operation becoming a "fad" with notoriety-seeking specialists whose "brilliant work" has supplied monumental marks in the history of modern abdominal surgery.

In the hands of judicious surgeons the procedure may be of use, and we hope that the subject will receive the fullest attention; not that it may unwisely increase the surgical tendency in obstetrics, but that it may lead to more exact study of indications and to greater care in the early management of cases at the hands of the profession.

Book Reviews.

A Manual of the Operations of Surgery for the the use of Senior Students, House Surgeons and Junior Practitioners. Illustrated. By Joseph Bell, M. D., F. R. C. S., Edin. Seventh Edition, Revised and enlarged. Edinburgh: Oliver & Boyd, Tweeddale Court. London: Simpkin, Marshall, Hamilton, Kent & Co. Price, six shillings.

This work has been rewritten and brought up to date. The different operations are described in a simple and concise manner, all reference and discussions are carefully omitted. The chapter on eye operations is well written and worthy of careful study.

One thing noticeable, that the author says nothing concerning antisepsis or wound dressing.

The work is nicely bound and printed.

The Principles and Practice of Bandaging, by G. G. Davis, M. D., Assistant Demonstrator of Surgery, University of Pennsylvania, etc. George S. Davis, Publisher, Detroit. Price, Cloth, $3.00.

The author claims that the best results in surgery, especially fractures, can only be obtained by understanding the principles and the thorough application of the bandage.

The work is thorough and clear. The fundamental principles are plainly set forth. The art of skillfully applying bandages, should be acquired by every student. This work serves as a practical guide. The book is profusely illustrated.

Mental Diseases; Epitome of; including their Classification, Synonyms, and Symptoms, their Etiology, Diagnosis and Treatment, with the Present Methods of Certification of the Insane, by James Shaw, M. D., formerly Medical Superintendent, and Co-Licensee, Haydock Lodge Asylum, London.

Its Semi-Dictionary form of compilation makes its ready reference exceedingly convenient for practitioners and students and forms a valuable introduction to the more comprehensive treatises and exhaustive monongraphs. The work is largely a compilation from the bibliography of the subject, yet the author has stamped his own individuality as a specialist upon the book by observations and experiences both in Asylum and private practice. Its several chapters are devoted to:

I. Definitions of Insanity and Classification of Mental Diseases.

II. Index of Symptoms Somatic, Physiological, and Psychical, with the Mental Diseases in which they occur.

III. Index of Mental Diseases with their Synonyms and Symptoms.

IV. Etiology. V. Diagnosis. VI. Prognosis.

VII. Pathological Anatomy, Pathology, and Pathogenesis.

VIII. Therapeutics and Hygiene.

IX. Legal Regulations and Forensic Psychiatry. General Index of 23 pages.

One octavo volume. Illustrated. Uniform with Medical Classics. Morocco cloth. Price, $2.75. Published by E. B. Treat & Co., 5 Cooper Union, New York.

BOOKS RECEIVED.

Practice of Medicine, by Edwin T. Doubleday, M. D., Member of New York Pathological Society, and J. D. Nagel, M. D., Member of New York County Medical Association. $1.00. Students' Quiz Series, No. 6.

Gynecology, by G. W. Bratenahl, M. D., Assistant in Gynecology, Vanderbilt Clinic, New York, and Sinclair Tousey, M. D., Assistant Surgeon, Out Patient Department, Roosevelt Hospital, New York. $1.00. Students' Quiz Series, No. 12.

Genito-Urinary and Venereal Diseases: A Manual for Students and Practitioners, by Charles H. Chetwood, M. D., etc., Philadelphia, Pa.: Lea Bros. & Co. Price, $1.00. The Students' Quiz Series.

Obstetrics: A Manual for Students and Practitioners, by Charles W. Hayt, M. D: Lea Bros. & Co., Philadelphia. Price, $1.00. The Students' Quiz Series.

Materia Medica and Therapeutics: A Manual for Students and Practitioners, by L. F. Warner, M. D., Philadelphia: Lea Bros. & Co. Price, $1.00. The Students' Quiz Series.

Gonorrhœa and its Treatment, by G. Frank Lydston. George S. Davis, Publisher, Detroit, Mich. Price, 25 cents.

Transactions of the Michigan State Medical Society for the year 1892. Vol. XVI.

Proceedings of Philadelphia County Medical Society for the year 1891. Vol. XII.

A Text Book of Diseases of the Skin, by John V. Shoemaker, A. M., M. D., Professor of Dermatology in the Medico-Chirurgical College of Philadelphia. 8 vo. With Six Chromo-Lithographs and numerous Engravings. Cloth, $5.00; sheep, $6.00.

Characteristics, by S. Weir Mitchell, M. D., LL.D. (Harvard). New York: The Century Co., 1892.

Periscope.

THERAPEUTICS.

THE TREATMENT OF STAMMERING.

For some reason or another the treatment of stammering has never received the attention it merits at the hands of the profession. Its victims are left to fight their way as best they can, and should they dream of better things they are fain to apply to one or other of the quacks—this is, perhaps, a harsh name to apply to some of them—who profess to cure a distressing and disabling infirmity. It is, indeed, a reproach to the medical profession that the treatment of a functional defect of this kind, in the majority of instances, more or less amenable to rational measures, should have been abandoned to outsiders. A good deal has been written with respect to the etiology of stammering, but it is obvious that the want of coordination between the different factors of articulate speech may result from an imperfection in any one of them, and the possible causes of stammering are thereby multiplied almost indefinitely. The least promising cases are evidently those in which the embarrassment is due to what one may term an intellectual chorea. Even in these, however, immense improvement is possible by combined mental and physical training. Moreover, the psychological deficiency is often more apparent than real, and may merely be the result of years of exaggerated self-consciousness created by a ridiculous defect. In other cases the coordinating centre seems simply to get out of gear. An attack of whooping-cough or measels, a fright or other strong emotion, may determine a hesitation which can only be overcome by a course of training. We have recently had an opportunity of witnessing some really remarkable and prompt "cures" of stammering in both children and adults by suitable training, and these results fully justify the claim we have advanced for a greater share of attention.—*Medical Press.*

TETANUS CURED BY TETANUS ANTITOXIN.

E. Pacini (*Rif. Med.*, January 7th, 1892) reports a cure of traumatic tetanus by the tetanus antitoxin of Tizzoni and Cattani (see *British Medical Journal*, January 2d, 1892, p. 25). A man, aged 21, slightly wounded the tip of his left ring finger with a reaping hook in a stable where there were some oxen, rabbits, and a goat. He washed the wound with wine and tied a piece of rag around it, continuing to do his work as before. About ten days after the accident, which occurred on October 25th, he began to feel some difficulty in opening his mouth, and on November 12th he was admitted to the Hospital of the Colle di Val d'Elsa (Tuscany) with well marked tetanus. He was treated with chloral (6 to 8 grammes in the twenty-four hours, in 2-gramme doses) for some days, but as the symptoms became more severe, a supply of antitoxin was procured from Professor Tizzoni, of Bologna, and, the chloral treatment having been suspended for some hours, 25 centigrammes of antitoxin, obtained from the blood serum of a dog which had been artificially rendered refractory to tetanic infection, were injected hypodermically at 10 a. m. on November 19th. This was repeated at 4 p. m. the same day. In the evening the patient was quieter, the convulsions being less violent, and he was able to open his mouth for about half a centimetre, and to move his head a little. The wound had by this time completely cicatrized. The injections were repeated twice daily on November 20th, 21st, and 22nd. From that time the symptoms became gradually less severe, but it was not till December 9th that the patient could be discharged, being then entirely free from trismus and spasms, and complaining only of some difficulty in opening his mouth, and slight aching along the spine and in the lower limbs. From the report of the case, which is given in great detail, the effect of the antitoxin does not appear to have been very well marked till after the eighth injection. The number of tetanic spasms, which had been 296 in the twenty-four hours on November 19th, 505 on the 20th, 304 on the 21st, 358 on the 22nd, fell to 174 on the 23rd, to 130 on the 24th, and so on by the regular descent, with slight interruptions, to 1 on December 5th. On two occasions during the antitoxin treatment (November 20th and 21st) when the spasms were particularly violent, chloral was given in 2-gramme doses, and after the discontinuance of the injections a similar draught was given every night. With this excep-

tion no treatment is recorded as having been employed after November 22nd.—*Brit. Med. Jour.*

MEDICINE.

THE VALUE OF ALBUMINURIA AS A MEANS OF DIAGNOSIS.

In a paper on this subject in the *International Medical Magazine* Dr. F. R. Sturgis, of New York, concludes from a survey of the literature that albumin in the urine does not necessarily signify any renal disease; that it exists temporarily in many diseases unassociated with any organic renal complication; that from the uncertainty of tests and methods of testing it loses a great deal of its value as a diagnostic sign; and that if present in even a small quantity it is a danger-signal, and if persistent indicates some serious organic lesion.

THE ETIOLOGY OF EPILEPSY.

Walton and Carter (*Boston Medical and Surgical Journal,*) have made a study of the connection between epilepsy and infantile convulsions. By careful scrutiny and elimination of doubtful cases, they were able among two thousand five hundred and thirty-nine cases of all kinds applying at the neurological department of the Massachusetts General Hospital, to isolate one hundred and thirty-three cases of epilepsy —5.25 per cent. In time of onset, they were divided as follows: From birth to five years, twenty cases(15 per cent.); from six to ten years, eighteen cases (13.5 per cent.); from eleven to fifteen years, twenty cases (15 per cent.); from sixteen to twenty years, nineteen cases (14.33 per cent.); from twenty-one to thirty years, thirty-five cases (26.33 per cent.); from thirty-one to forty years twelve cases (9 per cent.); from forty-one to fifty years, three cases (2.25 per cent.); from fifty-one to sixty-five years, four cases (3 per cent.); unknown two cases (1.5 per cent.). Of seventy successive cases of pure epilepsy in hospital and in private practice, in which careful inquiry was made as to the occurence of convulsions in infancy, both in the patient and in brothers and sisters, nine commenced in infancy and became continuous, fifty-six presented no history of convulsions in infancy followed by a period marked by an absence of convulsions. It was found that among the brothers and sisters of epileptics, convulsions in infancy were more common than among the epileptics themselves. Of one thousand children consecutively taken at random from society, Walton and Carter elicited a history of convulsions in infancy in one hundred and eleven. It has been estimated that there are about six epileptics in every thousand of population; as convulsions in infancy are observed in one of fourteen cases (five in seventy) of epilepsy, the two affections occur coincidently once in not less than 2000 individuals; and as convulsions in infancy are observed in 222 of every 2000 (111 in 1000) individuals, fhe chance that a chlld presenting convulsions in infancy will develop epilepsy later in life is 1 in 222. The conclusion to be arrived at is that epileptics are at least not more likely than others to have had convlusions in infancy, and that conversely, a child that has had convulsions in infancy is not more liable than any other to develop epilepsy later in life, after a period marked by freedom from attacks has removed the case from the class of epileptics in which the convulsions begin in infancy and become continuous.

SURGERY.

THE SURGERY OF THE TONGUE.

In an excellent paper on this subject read before American Surgical Association, May 31, 1892, Dr. Danbridge presented the following conclusions:

1. Sufficient experience has been accumulated to show that removal of cancer of the tongue prolongs life, adds to the comfort of the patient, and further affords a reasonable hope of permanent cure.

2. All operations should be preceded by an effort to secure thorough disinfection of the mouth and teeth.

3. In the treatment of continued ulcers and sores on the tongue, caustics are to be avoided and all sources of irritation removed.

4. Persistent sores on the tongue should be freely removed by knife or scissors if they resist treatment.

5. When the disease is confined to the tongue, Whitehead's operation should be employed for its removal.

6. In this operation the advantage of preliminary ligation of the lingual artery

is not definitely settled, but the weight of authority is against its necessity.

7. The advantage of leaving one-half the tongue in unilateral disease must be considered undetermined, but the weight of positive experience is in its favor. In splitting the tongue into lateral halves, Baker's method of tearing through the raphe should always be employed.

8. A preliminary tracheotomy adds an unnecessary element of danger in the removal of the tongue in ordinary cases.

9. When the floor of the mouth has become involved or the glands are enlarged, Kocher's operation should be employed, omitting the spray and preliminary tracheotomy.

10. Removal of the glands by a separate incision after the removal of the tongue, must be considered insufficient.

11. Volkmann's method still rests on individual experience. Its just value cannot be determined until it has been subjected to trial by a number of surgeons.

12. Thorough and complete removal should be the aim of all operations, whether for limited or exteme disease.

13. By whatever method the tongue is removed, the patient should be up and out of bed at the earliest possible moment, and should be generously fed.—*Journal of the American Medical Association.*

A SIMPLE AND ECONOMICAL FORM OF TRACHEOTOMY TUBE.

A very efficient tracheotomy tube for use after the tract has become fairly free by wearing a silver tube for two or three days, can be made with a piece of India rubber drainage-tube in the following manner: An oval piece is cut out of one side of the tube, the shorter diameter of the oval reaching about half way around the tube. Two longitudinal cuts are then made, one on the same side as the oval opening and the other opposite to it, reaching from the end of the tube to a point about a quarter of an inch from the opening; this distance will, however, vary with the depth of the wound that the tube is to be inserted into. In the lateral flaps made by these longitudinal incisions holes are cut for tapes. The piece of tube beyond the oval opening is the part which is put into the trachea. This tube has the following advantages: 1st. It fits the trachea well, having an angle instead of a curve, and tilting of the lower end cannot occur to cause pressure and ulceration. 2d. The window allows laryngeal respiration to take place as soon as the diminution of the swelling has made the glottis patent. 3d. The cost of the tube is practically *nil*. 4th. Being made of drainage-tubing it is nearly always at hand.—(*Brit Med. Journal*).

REMOVAL OF THE VERMIFORM APPENDIX IN THE APYREXIAL STAGE OF PERITYPHLITIS.

Dr. Kümmell read an article at the Surgical Society of Hamburg (*Duetsche Med. Wochenschrift*, No. 11, 1892), in which he reported six cases in which he had removed the vermiform process. The author believes that the remote cause of a perforation is a catarrhal inflammation, and that fecal-calculi, etc., are secondary to this. As a consequence of the inflammation a stricture is developed; behind this a cavernous dilatation occurs, which becomes filled with fecal matter and pus, and finally ruptures, permitting the escape of the contents into the peritoneal cavity. In four of the six operated cases perforation had taken place.

1. The first case was a woman who had had many attacks and was never free from trouble. The appendix was ulcerated in two places. The vermiform appendix and cecum were resected. The patient was dismissed cured.

2. A female patient who had suffered from many attacks. The appendix was removed; the patient was dismissed cured.

3. A male patient who had passed through two attacks before the operation. The case was an unfavorable one, because the perforation was situated at the opening of the appendix into the cecum. The vermiform process ruptured during the operation. The wound in the cecum was closed; but the patient suffers constant annoyance, probably from adhesions which have formed.

4. In this case, a male patient, the perforation was located at the same point as in the last. The sutures did not unite, and a second union was necessary. The patient afterward contracted typhus, and is still under treatment.

5. A woman, 40 years old, who had four attacks. An exudation was distinctly recognizable. The vermiform process was removed. Perforation had not yet

taken place. The patient was dismissed cured.

6. A man, 38 years of age, who had had fifteen attacks. A stricture of the appendix was distinctly recognized, and behind it, a small fecal stone. The case is now in a fair way to recover.

McBURNEY AND APPENDICITIS.

Dr. McBurney, in reportiug a number of cases of appendicitis to the New York Academy of Medicine again calls attention to the comparative frequency of the trouble. Its assumed rarity in former years is explained by the fact that the disease was not understood. Foreign bodies, fæces and other sources of irritation easily set up inflammation. A moderate rise of temperature (99–101) occurs with a feeling of nausea, followed by vomiting. There is abdominal pain, often diagnosed as mere colic, and tenderness of the more or less rigid abdominal muscles. The point of greatest tenderness is found over a spot about two inches from the superior anterior iliac spine on a line extending from this point to the umbilicus. (Our readers will know that this is briefly referred to as the McBurney point.) On deep palpation a tumor may often be felt marking the seat of impactive swelling and inflammation. Suppuration ordinarily takes place; although under hot applications, opium, etc., the attack may be soothed down. The abscess is surrounded by a more or less developed pyogenic wall. Exacerbations may come and go, but with perforation death is sure to come. Primary operation interference is always indicated; delay means inviting uncontrollable danger The most urgent cases are those of acute suppurative disease with perforation and gangrene of the appendix. The diagnostic signs pointing in this direction are: *sudden* severe pains on second day over McBurney joint; rapid subsequent rise of temperature, existence of a palpable sensitive tumor. Ordinarily an incision 4½ inches long should be made about one inch outside of the linea semilunaris. Examine carefully the caput coli; remove all pus; ligate appendix and disinfect with cautery; pack with antiseptic gauze and recovery is rapid and undisturbed.—*New York Medical Record.*

NEWS AND MISCELLANY.

As a recent notice in this journal has informed our readers, the Eleventh International Congress will meet in Rome, Italy, from September 24th to October 1st, 1893. By an official letter dated August 22nd, 1892, and signed by Prof. Guido Baccelli, president, and Prof. E. Maragliano, secretary general, Dr. A. Jacobi, of New York, has been directed to form an American Sub-Committee. Its membership is not yet complete, but on it are already found besides that of the chairman, the names of Drs. Wm. Osler, of Baltimore; S. C. Busey, of Washington; N. S. Davis, of Chicago; Charles A. L. Reed, of Cincinnati; Wm. Pepper, of Philadelphia; F. Peyre Porcher, of Charleston; James Stewart, of Montreal, and Alexander J. C. Skene, of Brooklyn, N. Y. In the interest of facilitating the trip to Italy, and reducing the expense, arrangements will be made with the steamship companies. According to a communication from the Central Committee—contained in a letter of the secretary general's dated September 14th—the North German Lloyd proposes to reduce the fare to Genoa twenty per cent., and that of the return trip by ten per cent. It is expected that still more favorable terms will be secured.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY FROM OCTOBER 9, 1892, TO OCTOBER 15, 1892.

Leave of absence for one month is granted Captain Henry P. Birmingham, Assistant Surgeon, U. S. Army.

Leave of absence for fifteen days is granted Major Daniel G. Caldwell, Surgeon, U. S. Army.

By direction of the Acting Secretary of War, paragraph 3, S. O. 199, Aug. 24, 1892, A. G O. is revoked and Captain Louis M. Mans, Assistant Surgeon, U. S. Army, is relieved from duty at Fort Apache, A. T., and will report in person without delay, to the commanding officer, Whipple Barracks, Arizona, for duty at that station.

1st. Lieutenant Isaac P. Ware, Assistant Surgeon, U. S. Army, is relieved from duty at Fort Logan, Colorado, and will proceed without delay to Fort Supply, Indian Territory, and report in person to the commanding officer of that post for duty.